

PSYCHOLOGICAL TYPE,
COACHING ACTIVITIES AND COACHING EFFECTIVENESS
IN CORPORATE MIDDLE MANAGERS

by

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A dissertation submitted to the faculty of the
University of Bridgeport in partial fulfillment of the requirements

Doctor of Education

Department of Educational Management

University of Bridgeport

May 1989

UNIVERSITY OF BRIDGEPORT

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ABSTRACT

PSYCHOLOGICAL TYPE, COACHING ACTIVITIES AND COACHING EFFECTIVENESS IN CORPORATE MIDDLE MANAGERS

Henry Richard Hein

The purpose of this study was to examine the relationship of the dimensions of psychological type, as measured by the Myers-Briggs Type Indicator, to the coaching behaviors and activities of corporate middle managers. The coaching behaviors of the 30 corporate middle managers studied included providing positive feedback to employees, providing direction to coaching discussions, emphasizing facts or concepts, adhering to schedules in coaching activity, and identifying employee development needs. Data regarding coaching behaviors was obtained by means of a specifically designed instrument, The Research Survey of Coaching Activity, which was administered during formally defined coaching activity sessions. The data was analyzed by means of Pearson product moment correlation coefficients, t-tests and Chi square measures.

Significant relationships were found between the extraversion-introversion and sensation-intuition dimensions of type and the amount of time spent in coaching activity areas.

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ABSTRACT

PSYCHOLOGICAL TYPE, COACHING ACTIVITIES AND COACHING EFFECTIVENESS IN CORPORATE MIDDLE MANAGERS

Henry Richard Hein

The purpose of this study was to examine the relationship of the dimensions of psychological type, as measured by the Myers-Briggs Type Indicator, to the coaching behaviors and activities of corporate middle managers. The coaching behaviors of the 90 corporate middle managers studied included providing positive and negative feedback to employees, providing direction to coaching discussions, emphasizing facts or concepts, adhering to schedules in coaching activity, and identifying employee development needs. Data regarding coaching behaviors was obtained by means of a specifically designed instrument, The Research Survey of Coaching Activity, which was administered during formally defined coaching activity sessions. The data was analyzed by means of Pearson product moment correlation coefficients, t-tests and Chi square measures.

Significant relationships were found between the extraversion-introversion and sensation-intuition dimensions of type and the amount of time spent in coaching activity areas.

A relationship was also found between manager preferences for extraversion and intuition and higher effectiveness ratings by subordinates of manager coaching behavior. In addition, a significant relationship was found between amount of time spent in coaching by managers and employee perceptions of manager effectiveness in coaching. Preferences for extraversion and intuition correlated significantly with giving more positive feedback. Managers with preferences for judgement placed more emphasis on tight scheduling, and manager preferences for intuition and thinking were related to more attention to identifying the development needs of subordinates.

There was a significant positive relationship between manager coaching effectiveness and all of the management coaching behaviors studied. Manager ratings of difficulty with coaching activities did not relate significantly to type. There were no significant differences in time spent in coaching activities by older or younger managers. However, a significant relationship was found between functional work assignment of managers and their preference on the extraversion-introversion dimension of type.

Recommendations were made both for further research and for the professional development of coaching skills of practicing managers. Training programs which provide information on type and the potential influence of type on coaching behavior were recommended.

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This study would not have been possible without the help of many individual advisors, participants and supporters. My special thanks goes to the members of my dissertation committee Dr. Robert Kranyik, Dr. Jack Mulcahy, and Dr. Gene Brady. Dr. Phillip Shaak and Dr. John Drake have provided me with much support, inspiration, guidance and learning over many years.

Special appreciation is due to all my colleagues and associates who gave of their time to act as subjects, advisors and extra hands to get the project finished. And of greatest importance, without the love, help, support and encouragement of my wife, Maura, my daughter Brenda, and son, Peter I would have neither started nor finished.

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¹Rosabeth Kanter, *The Change Masters*, (New York: Simon and Schuster, 1963), p.65.

²Michael Beer et al., *Managing Human Assets*, (New York: The Free Press, 1984), p.66.

³Bill Levin and Emory Casstevens, *Coaching, Learning and Action*, (New York: American Management Association, 1971), p.1.

CHAPTER I

INTRODUCTION

A rapidly changing environment requires that organizations change in order to survive.¹ A significant portion of this change involves preparing individual managers and technologists with appropriate skills and knowledge necessary to adapt to their dynamic environment.² This skill and knowledge enhancement normally occurs through a process of individualized training and development.

Studies indicate that most development of improved performance or skill is the result of on-the-job learning as opposed to formal classroom training or special assignments.³ A key individual in that development is the individual's supervisor whose activities are directed at maximizing the employee's job performance. Of these activities the single most influential element is coaching - the day to day guidance,

¹Rosabeth Kanter, The Change Masters, (New York: Simon and Shuster, 1963), p.65.

²Michael Beer et al., Managing Human Assets, (New York: The Free Press, 1984), p.66.

³Bill Lovin and Emery Casstevens, Coaching, Learning and Action, (New York: American Management Association, 1971), p.1.

feedback and training provided by the supervisor.⁴ Rackham⁵ cited evidence that most skill training is wasted without management coaching to sustain the newly acquired skills. Michalak⁶ found that "maintenance-of-behavior", or coaching, activities by managers are essential to the transfer and use of skills from the classroom to the work situation. In addition, a study by Digman⁷ of over 13,000 managers and supervisors concluded that over 90% of respondents considered coaching by one's supervisor to be one of the top three factors of importance to their personal development.

Although some individuals found their managers helpful in guiding their development, there was data to indicate that many employees did not consider their supervisors to be effective coaches (providers of guidance critical to improved performance).⁸ Several factors were cited by managers for failing to coach:

⁴Walter Mahler, "Coaching", in Training and Development Handbook, eds. Robert Craig and Lester Bittel, (New York: McGraw Hill, 1967), p.130.

⁵Neil Rackham, "The Coaching Controversy", Training and Development Journal 33 (November 1979): 12-16.

⁶Donald Michalak, "The Neglected Half of Training", Training and Development Journal 35 (May 1981): 22-28.

⁷Lester Digman, "Management Development Needs and Practices", Personnel (July-August 1980): 45-57.

⁸Mahler, Handbook, p.130.

¹³Isabel Briggs Myers, Gifts Differing, (Palo Alto: Consulting Psychologists Press, 1980): p.ix-xii.

1. They lack the time to do a proper coaching job.⁹
2. They are uncomfortable with the face to face coaching relationship.¹⁰
3. They lack the skills to do a proper job.¹¹ Four of these specific coaching skills have been identified as interviewing, analysis of performance, observing performance, and providing feedback.¹²

The skill areas associated with coaching have also been the subject of studies of psychological type. According to Carl Jung, psychological type is the classification of human information processing and decision making preferences. His research was extended by Isabel Myers-Briggs to the development of a self-report instrument (The Myers-Briggs Type Indicator) to measure configurations of psychological type.¹³

The literature on type has made many references to influences of type on teaching and learning behavior as well as

⁹David Megginson and Tom Boydell, A Managers Guide To Coaching, (Boston: McBer and Company, 1986), p.10.

¹⁰Ferdinand Fournies, Coaching For Improved Work Performance, (New York: Van Nostrand and Reinhold Company, 1978), p.2.

¹¹Ibid., p.2.

¹²Charles Orth, Harry Wilkinson and Robert Benfari, "The Managers Role As Coach And Mentor", Organizational Dynamics 15 (Spring 1987): 66-74.

¹³Isabel Briggs Myers, Gifts Differing, (Palo Alto: Consulting Psychologists Press, 1980): p.ix-xii.

implications for coaching behavior in managers.¹⁴ Styles of interpersonal communication, problem solving, planning and data analysis have also been the focus of studies of psychological type. This study used the framework of psychological type research to examine manager coaching behavior.

Statement Of The Problem

The literature on coaching recommended more attention to the development of coaching proficiency in managers.¹⁵ To provide a data based approach in identifying specific areas of coaching improvement need, this study investigated the relationship between psychological type, the coaching activities of managers measured by the time spent in specific coaching activities, manager perceptions of coaching problem areas and, the results of coaching as experienced by direct subordinates.

Specifically six questions were addressed:

1. Are coaching activity patterns related to the psychological type of managers?
2. What is the relationship between the psychological type of managers and coaching effectiveness?

¹⁴Paul Mok, I Speak Your Language Technical Manual, (New York: Drake Beam Morin, 1972).

¹⁵Mahler, Handbook, p.130.

¹⁶idem., Handbook, p.130.

3. How is manager psychological type related to perceived difficulty with specific coaching activities?
4. Are perceived manager difficulties with specific coaching activities related to time spent on those activities?
5. Are perceived manager difficulties with coaching activities related to coaching effectiveness?
6. Are specific coaching activities related to coaching effectiveness?

Significance Of The Study

This study was considered important for three reasons:

1. The need for increased proficiency in management coaching practices must be met with a better knowledge of the coaching improvement needs of practicing managers. This knowledge can be used in the design of training programs to teach and reinforce specific management coaching skills.¹⁶ The relationship of perceived difficulty, time spent on coaching and coaching effectiveness provides important information for designers of coaching training programs.

2. There is a dearth of knowledge of the specifics of management coaching behavior. There is a need for research on specific coaching behaviors especially when examined from the viewpoint of managers and their respective subordinates. This

¹⁶Idem., Handbook, p.130.

is consistent with the observations of Campbell et al.¹⁷ regarding the necessity to build up the body of information on all management behaviors. The present study adds to that body of information by providing data on specific coaching activities.

3.1. There is a need to examine personal characteristics of effective manager-coaches as well as their skills.¹⁸ The psychological type approach to measuring relevant personal characteristics is an established method which can be effectively integrated with the study of coaching behavior. The methodology has been helpful when used to interpret specific behaviors in a variety of management settings.¹⁹ A better understanding of the implications of psychological type for coaching behavior is necessary prior to generalizing the use of psychological type research to the training of coaches.

Definition Of Terms

Terms used in this study were defined as follows:

Coaching Analysis: the management process of attending to

Apollonian: one of the four categories of behavior described in

of correction, encouragement or reinforcement.

¹⁷John Campbell et al., Managerial Behavior Performance and Effectiveness, (New York: McGraw Hill, 1970), p.479.

¹⁸Henry Mintzberg, The Nature of Managerial Work, (New York: Harper and Row, 1973), p.194.

¹⁹Sandra Hirsh, Using The Myers-Briggs Type Indicator In Organizations, (Palo Alto: Consulting Psychologists Press, 1985) p.1. McGinnison and Boydell, Managers Guide, p.10.

Keirsian temperament theory. This temperament is characterized by preferences for intuition and feeling as described in or psychological type theory.

Career Development: a formal process in which a manager and employee meet to discuss the employee's interests in future assignments and corresponding skill and knowledge development needs.

Chi square: a statistical test used to compare observed categorical occurrences of data against predicted occurrences of the same data.

Coaching: "a process in which a manager, through direct discussion and guided activity, helps a colleague to learn to solve a problem, or do a task, better than would otherwise have been the case."²⁰

Coaching Analysis: the management process of attending to employees with sufficient attention to isolate behavior in need of correction, encouragement or reinforcement.

Coaching Effectiveness: the effect of specific coaching activities on employee behavior change for improved performance.

²⁰Meggison and Boydell, Managers Guide, p,10.

Episthean: one of the four categories of behavior described in

Coaching Difficulty: the reluctance that must be overcome or technical effort that must be exercised to perform a defined coaching activity relative to other coaching activities or other interpersonal management tasks.

Extraversion: "The attitude that orients attention and energy to

Day-to-Day Coaching: a manager's specific unplanned or informal discussions of performance with employees.

Feeling: "One of the two judging functions that makes decisions

Dionysian: one of the four categories of behavior described in Keirsian temperament theory. This temperament is characterized by preferences for sensation and perception as described in psychological type theory.

Dominant Function: "The function or process that is assumed to be first developed, most conscious and differentiated, and which becomes the governing force dominating and unifying one's life,"²¹

Double-Blind: a research method in which a third party is used to distribute tests to subjects so that the prime investigator does not know the identity of the subjects.

²² Ibid., p.224.

²¹ Isabel Myers and Mary McCaulley, Manual : A Guide To The Development And Use Of The Myers-Briggs Type Indicator, (Palo Alto: Consulting Psychologists Press, 1985), p.224.

Epimethean: one of the four categories of behavior described in Keirsian temperament theory. This temperament is characterized by preferences for sensation and judgement as described in psychological type theory.

Jungian Type Dimensions: Carl Jung's descriptions of

Extraversion: "The attitude that orients attention and energy to the outer world."²²

Feeling: "One of the two judging functions that makes decisions by ordering choices in terms of personal values."²³

Functions: "The four basic mental processes or powers of sensing, intuition, thinking, and feeling."²⁴

Introversion: "The attitude that orients attention and energy to the inner world."²⁵

Intuition: "One of the two perceptive functions that attends to meanings, relationships, symbols, and possibilities."²⁶

²²Ibid., p224.

²³Ibid., p.224.

²⁴Ibid., p224.

²⁵Ibid., p224.

²⁶Ibid., p225.

Judgement: "A term that refers to the two judging functions, thinking and feeling. Judgement also describes how thinking and feeling appear in observable behavior."²⁷

Jungian Type Dimensions: Carl Jung's descriptions of extraversion-introversion, sensation-intuition, thinking-feeling, and judgement-perception as the dimensions of psychological type.

Keirsian Temperament Theory: a theory of behavior formulated by Dr. David Keirsey which is based upon a psychological predisposition to act within one of four defined patterns of behavior or temperament. The four, temperaments Apollonian, Dionysian, Epimethean, and Promethian were formulated from historical models of behavior patterns and the works of Carl Jung.

Middle Manager: a category of corporate manager defined by level of responsibility and position within the hierarchy of levels of management. Middle managers are ranked between Director level executives and Supervisors of non-professional employees. Middle managers have responsibility for a department or a functional area and frequently manage Supervisors and professional employees.

²⁷Ibid., p.225.

the content of a formal performance appraisal document.

Myers-Briggs Type Indicator (MBTI): a psychometric questionnaire used to measure combinations of individual preferences for Jungian type dimensions.

Negative Performance Feedback: a form of feedback which indicates that either something is not being done correctly or that one's behavior is not up to some standard.

Pearson Product Correlation Coefficient: a statistical test to examine the mathematical relationship between two variables.

by preferences for intuition and thinking as described in

Perception: "A term that refers to the two perceptive functions, sensing and intuition. Perception also describes how sensing and intuition appear in observable behavior."²⁸

based on Carl Jung's description of individual preferences on

Performance Appraisal: a formal written document used to record an annual summary of employee performance, comments on the performance by the employee's manager and comments on areas of recommended development for the employee.

measure the amount of time spent on defined coaching activities.

Performance Appraisal Discussions: the face-to-face discussion that takes place between a manager and an employee concerning

the two perceptive functions that attends to

²⁸Ibid., p225.

the content of a formal performance appraisal document. (adjective).²⁹

Performance Planning: a formal process to either set goals for specific results or targets of specific behavior changes important to achieve short or long term performance goals. (for the purposes of statistical analysis)

Positive Performance Feedback: feedback given to a subordinate by a manager which indicates that something is being done correctly or that one's behavior meets or exceeds some standard.

T-Test: a mathematical test to compare the significance of

Promethian: one of the four categories of behavior described in Keirsian temperament theory. This temperament is characterized by preferences for intuition and thinking as described in psychological type theory. (of cause-effect or impersonal)

logical analysis.³⁰

Psychological Type: a classification of personality factors based on Carl Jung's description of individual preferences on four dimensions of behavior: introversion-extraversion, sensing-intuition, thinking-feeling, and perception-judgement.

Research Survey Of Coaching Activity: a questionnaire designed to measure the amount of time spent on defined coaching activities, results of those activities, and other variables.

Sensation: "One of the two perceptive functions that attends to

³⁰ Ibid., p. 225.

experiences available to the senses. (used as a noun and an adjective)."29

Limitations Of The Study

Statistical Package for Social Sciences (SPSS): a commercially available software package used to store and manipulate data for the purposes of statistical analysis

The study was also limited to psychological type classification

Temperament Theory: same as Keirsian temperament theory.

T-Test: a mathematical test to compare the significance of differences of the means of two different sets of data.

specifically designed for this study. Pearson product moment

Thinking: "One of the two judging functions that makes decisions by ordering choices in terms of cause-effect or impersonal logical analysis."30

Type Theory: Carl Jung's exposition and description of the influence of psychological type preferences as influences on human behavior.

This study was divided into five chapters. Chapter One contains an introduction, statement of the problem, significance of the study and definition of terms and limitations. Chapter Two presents a review of the relevant literature. Chapter Three describes the design of the study. Chapter Four presents the

29Ibid., p.225. Five contains a discussion of conclusions

and 30Ibid., p.225.

Limitations Of The Study

This study was limited to a nationwide population of middle managers and professional employees reporting to those managers within a single major international corporation. The study was also limited to psychological type classification based upon the Myers-Briggs Type Indicator and the validity and reliability limitations of this instrument. Estimates of coaching time, perceived difficulty and effectiveness were restricted to the Research Survey of Coaching Activity specifically designed for this study. Pearson product moment correlation coefficients, Chi square, and t-tests at the .05 level of significance were the main analytical measures. Data analysis was subject to design methodology and the limitations of the statistics used.

Organization Of The Study

This study was divided into five chapters. Chapter One contains an introduction, statement of the problem, significance of the study and definition of terms and limitations. Chapter Two presents a review of the relevant literature. Chapter Three describes the design of the study. Chapter Four presents the results and Chapter Five contains a discussion of conclusions and recommendations.

CHAPTER II

REVIEW OF THE LITERATURE

The theoretical rationale for this study was drawn from literature in the fields of: business, education, management, and psychology. The literature review highlighted key connections among the diverse source documents and it was divided into seven sections:

1. Identification Of Coaching Elements
2. Management Reluctance to Coach
3. Coaching and Teaching
4. Psychological Type
5. The Relationship of Psychological Type to Teaching
6. Psychological Type and Management
7. Summary

Identification Of Coaching Elements

Coaching practices were common in the fields of athletics, management, and education. Kirkpatrick³¹ drew comparisons between the role of athletic coach and that of

³¹Donald Kirkpatrick, How to Improve Performance Through Appraisal And Coaching, (New York: Amacon, 1982), p.81.

Facilitating Transfer of Training. Eugene, Oregon: Center for Educational Policy and Management, 1984.

manager. He also differentiated a specific set of coaching behaviors from other management activities. The coaching factors defined were: performance planning, day to day coaching, providing positive and negative feedback, discussing performance improvement during periodic appraisal discussions, and providing advice and how-to information. The factors cited were emphasized as ongoing requirements. The formal annual performance appraisal was clearly designated as a vital part of the overall coaching process.

Showers³² illustrated the use of coaching skills in an educational setting. Peer coaching was used to develop the teaching skills of teachers. Peers could be trained to assist fellow teachers by giving technical feedback, providing support, analyzing curriculum problems and helping to formulate solutions. This was one study which examined the use of coaching skills by someone other than an individual's organizational manager.

Several major works on coaching have delineated and defined a pattern of management coaching activities. Deegan described thirteen activities which were common to the management coaches he studied:

1. planning the development of subordinates

³²Beverly Showers, *Peer Coaching: A Strategy For Facilitating Transfer Of Training*. Eugene, Oregon: Center for Educational Policy and Management, 1984.

³⁴Lovin and Casstevens, *Coaching*, 79-117.

2. reviewing development plans annually
3. requiring that individuals develop
4. giving on-the-job instructions
5. correcting mistakes when they occur
6. providing job rotation opportunities
7. providing time for development
8. developing replacement candidates
9. identifying individual development needs
10. working with developmental resources such as training departments
11. putting formal and informal developmental resources in place
12. planning upward career paths
13. identifying individuals with promotional potential.³³

Emphasis was also placed on the specific interview situation in which coaching occurred, including both annual and periodic appraisal interviews.

Lovin and Casstevens³⁴ provided an early text on coaching techniques. They identified a series of coaching strategies and practices specifically geared to the development of managers and supervisors. These strategies included planning between supervisor and employee, controlling the rate at which a subordinate takes on responsibility for current and future assignments, identifying opportunities to point out strengths and weaknesses as development needs, the use of coaching interviews including those for annual and periodic performance appraisal, and the use of reward and punishment and positive and negative feedback. They also identified a number of activities used to develop individuals including delegated special

³³Arthur Deegan, Coaching : A Management Skill For Improving Individual Performance, (Reading, Massachusetts: Addison-Wesley, 1986), p.15.

³⁴Lovin and Casstevens, Coaching, 79-117.

assignments, job rotation, and formal classroom instruction.

Mahler³⁵ reported on management coaching practices studied via a survey process. His work provided one of the major data based analyses of coaching factors. He identified nine specific factors that were derived from research on traits which were characteristic of good and poor coaches. Methodology of this research included data from formal questionnaires, attitude surveys, employee exit interviews, systematic observations, and management literature.

The nine factors were:

1. establishing responsibilities and goals
2. delegating developmental work assignments
3. knowledge of employee performance
4. providing assistance when required
5. motivation (particularly providing appropriate praise criticism and financial incentives)
6. creating an environment of employee support or a good working relationship
7. helping an employee to learn from experience assisted by discussions prior to and after assignments
8. providing developmental direction to an entire work group as a group rather than just to individual employees
9. discussing future responsibilities

Mahler employed a sixty-two item questionnaire in which respondents chose an alternative from a four point scale for each question. This is one of the few studies reviewed that addressed the issue of coaching frequency. Mahler also noted that there was an employee "willingness and ability" to report

³⁵Walter Mahler, "The Coaching Practices Survey", Diagnostic Studies, (Reading, Massachusetts: Addison-Wesley, 1974): 47-55.

accurately on these direct measures of managerial behavior.

Fournies³⁶ provided support for the importance of the identification of development needs, the use of positive and negative feedback, formal performance appraisal, and performance planning. Atkinson et al.³⁷ described the developmental responsibility of managers as three distinct roles including coach, sponsor and mentor. The coach role included setting goals, reviewing progress, formal appraisal, developmental assignments, appropriate positive feedback, and counseling subordinates through projects. The sponsor role, on the other hand, was considered to influence and stimulate an organization to promote an individual. The mentor role emphasized counseling and existed "outside normal boss-subordinate patterns because bosses administer rewards and punishments."³⁸

Dalton, Thompson and Price³⁹ identified a key mentoring role for professionals as an important part of their professional growth. As professionals moved through stages of their careers they frequently assumed managerial roles and an

³⁶Fournies, Coaching, 102-133.

³⁷Charles Atkinson et al., "Management Development Roles: Coach, Sponsor and Mentor", Personnel Journal, (November, 1980): 918-921.

³⁸Ibid., p.920.

³⁹Gene Dalton, Paul Thompson and Raymond Price, "The Four Stages of Professional Careers - A New Look at Performance by Professionals", Organization Dynamics (Summer, 1977): 19-42.

⁴⁰Meggison and Boydell, Guide to Coaching, pp.10-32.

associated responsibility for developing other professionals for the organization. The role of mentor was considered important to the success of an organization as well as the psychological satisfaction of mature or older managers.

Orth, Wilkenson and Benfari⁴⁰ supported the distinction of the coaching role from the roles of manager and evaluator. They specifically described coaching behavior as a means for mentors and managers to accomplish their goals with employees in the coaching role. Mahler,⁴² in a study of over

200 managers Megginson and Boydell⁴¹ provided support for the distinct coaching uses of performance appraisal, objective setting, and day-to-day review of an individual's development. They added a structured analysis of coaching styles defined along the dimensions of manager controlling behaviors and manager helping behaviors. This analysis of styles identified managers on a continuum of very directive or controlling what is discussed and developed, to very non-directive behavior where the manager allows the employee to both identify problems and propose solutions. The characteristic behaviors of effective coaches were closely linked to behaviors supportive of learning in adults.

In summary, the elements of coaching were noted and classified by a number of studies and authors. Coaching

⁴⁰Orth et al., Organization Dynamics, p.68.

⁴¹Megginson and Boydell, Guide to Coaching, pp.10-32.

behaviors form a unified set of management activities which were linked with improving employee learning and performance.

organizations often do not provide a climate that rewards management coaching, there were few role models, and managers had to work hard Management Reluctance To Coach an effective coaching style. The authors concluded that coaching was not a natural. Even though coaching was recognized as important, several authors noted that managers frequently did not perform adequately in the coaching role. Mahler,⁴² in a study of over 200 managers, found performance discussions with subordinates difficult for about half of the managers. He observed that although some managers were naturally comfortable with these discussions, most were not. Further, subordinates who received formal performance discussion interviews were more likely to indicate that their managers also do well on other coaching activities. Mahler concluded that there was some evidence that poor coaches may also be considered poor managers by their superiors:

These results suggest that those who might very well want to throw formal interviews out because they run into resistance of managers might well want to determine whether a difference exists between those managers who are willing to utilize more systematic approaches and those who find it difficult to do so.⁴³

⁴⁴McBer, Managerial Style Questionnaire: Trainers Guide, (Boston: McBer and Company, 1980), p.17.

⁴⁵Charles Vance, The Curriculum Imperatives of Teaching, (New York: 1983), p.27.

⁴²Mahler, handbook, p.137.

⁴³Ibid., p,135.

Orth, Wilkinson and Benfari⁴⁴ found coaching skills lacking in many organizations. They determined that organizations often do not provide a climate that rewards management coaching, there were few role models, and managers had to work hard to change attitudes and develop an effective coaching style. The authors concluded that coaching was not a natural talent for most managers. McBer's⁴⁵ research on management styles also supported this notion. Only 17% of managers studied had a natural coaching management style. The behaviors of this style were primarily directed toward the development of subordinates so that they could achieve their maximum potential and level of performance. This data emphasized the limited instances in which it was the natural preference of managers to engage in significant coaching activity.

Vance⁴⁶ used the phrases "unpredictable and wasteful happenstance" to describe the way in which many managers train and develop their subordinates. The method of learning these skills, for most managers, was evolved from the model provided by their own superiors who also did not develop adequate skills.

⁴⁴Orth et al., Organization Dynamics, p.67.

⁴⁵McBer, Managerial Style Questionnaire: Trainers Guide, (Boston: McBer and Company, 1980), p.17.

⁴⁶Charles Vance, "The Curriculum Imperatives OF Teaching Future Managers To Teach", Journal Of Management Development 7, (No.1, 1988), p.27.

enviro Lovin and Casstevens⁴⁷ attributed some of the successful reluctance of managers to coach as a hesitation for open discussion around any delicate or emotional subjects of either a negative or positive nature. They concluded that managers avoid situations with high emotional content.

Fournier⁴⁸ studied the performance appraisal practices of thirty five companies and identified a number of reasons for failure to conduct performance interviews and to coach. Organizations did not set clear objectives or expectations for coaching performance from their managers. There was evidence of confusion over the manager's role in the development process and a lack of appreciation for the complexity of the appraisal and coaching processes. Managers were not given adequate time or rewards for their efforts in the coaching process. Lack of proper training of managers to develop others was also a common situation. This finding was consistent with those studies which cited a poor coaching climate and a lack of role models as a reason for poor coaching performance.

These studies of coaching indicated frequent reluctance and deficiencies in coaching performance yet there were instances when managers were successful and enthusiastic in their coaching efforts. Successful coaches operated in the same

⁴⁷Lovin and Casstevens, Coaching, p.68.

⁴⁸Ferdinand Fournies, Management Performance Appraisal-A National Study, (Somerville, New Jersey: F.F.Fournies Associates, 1973): 95-96.

environments and under the same conditions as unsuccessful coaches. There seemed to be personal coaching style differences in successful coaches that could not be attributed only to the environment, conditions, and perfunctory training that most managers received.

Coaching and Teaching

References linking coaching behaviors to teaching were evident in the literature. Francis and Woodcock⁴⁹ considered training capability a critical management skill. The failure of a manager to act as a part time teacher or trainer was considered a significant management blockage. Fournies⁵⁰ described employee self development as a destructive management concept. He noted that managers must take full responsibility for the training of their subordinates. Peters⁵¹ deemed an investment in training critical to the success of a business. This training must be guided by line management and not just staff specialists. Indeed, line managers must be involved in the actual teaching of employees.

⁴⁹Dave Francis and Mike Woodcock, The Unblocked Boss: A Guidebook For Managers, (San Diego: University Associates, 1981), p.183.

⁵⁰Fournies, Coaching, p.27.

⁵¹Tom Peters, Thriving On Chaos, (New York: Alfred A Knopf, 1988), p.323.

Blake and Mouton⁵² saw the effective manager as a superior communicator, a teacher and a coach. They saw this role as an important way for a manager to engage individual employees sufficiently to build commitment to goals. Lovin and Casstevens placed high importance on the role of manager as teacher:

"Although a supervisor may not have anticipated his role as a trainer or a teacher, he must perform it because it is a vital part of the supervisor-subordinate relationship."⁵³ Many of the references to coaching practices seemed almost interchangeable with references to teaching practices. Emphasis on elements such as feedback to the learner, a need to provide guidance to the learning process, encouragement of the learner, and a need for clear learning goals permeated the literature on teaching as it pertained to coaching.

Psychological Type

The literature on coaching and the literature on coaching and teaching cited references to the apparent reluctance of some managers to coach. The skills and behaviors necessary for effective coaching have been the subject of studies of psychological type. Psychological type is a theory of behavior

⁵⁴Carl Jung, Psychological Types, Bollinger Series XI. The Collected Works of C.G. Jung, vol. 6. (Princeton: Princeton Univ.

⁵²Robert Blake and Jane Mouton, The Managerial Grid, (Houston: Gulf, 1964): 158-161.

⁵³Lovin and Casstevens, Coaching, p.14.

formally attributed to Carl Gustav Jung.⁵⁴ Jung, originally a colleague of Sigmund Freud, eventually broke with Freud to found the School of Analytical Psychology. Jung attempted to explain some aspects of human behavior as the result of a constant dynamic tension of conflicting mental forces. This theory differed from Freud's emphasis on behavior resulting from unresolved infantile sexual conflicts. Jung's theory of opposing mental forces postulated that individuals are constitutionally predisposed to certain patterns of thinking. He attributed his findings to clinical observation and traced support for the theory from studies of Classical and Medieval thought, poetry, literature, philosophy, and historical analysis.

Katherine Briggs, a contemporary of Jung, developed an approach to psychological type based upon her own observation as well as the work of Carl Jung.⁵⁵ Isabel Briggs-Myers, Katherine Briggs' daughter, began the systematic research necessary to test and measure the hypotheses of her mother and Carl Jung. Concurrently, she developed refinements to the theory of type and the Myers-Briggs Type Indicator (MBTI), a measurement instrument for psychological type.

⁵⁴Carl Jung, Psychological Types, Bollinger Series XX. The Collected Works of C.G.Jung, vol.6. (Princeton: Princeton University Press, 1971).

⁵⁵Myers, Gifts, pp.ix-xii.

Essentially, type theory and the measurement of type via the MBTI, was "concerned with the valuable differences in people that result from the way they like to perceive and the way they like to judge."⁵⁶ Perception is the process of seeking information through either a preference for external facts (sensation) or through internal mental formulation of relationships and possibilities beyond the reach of the senses (intuition). Judgement is fundamentally the process of making decisions about information. Type theory postulated two opposing methods. Decisions are either made via logical analysis (thinking) or they are based upon personal values (feeling). Individuals prefer either perception or judging and a subsequent preference for either sensing or intuition, or thinking or feeling. The exact preference for an individual is defined as his or her dominant type.

Other essential aspects of the theory related to an individual's preference for using his preferred or dominant process with the world of other people and things (extraversion) or the inner world of concepts and ideas (introversion). The preference for a judging or perceptive approach to the outer world is characterized by an individual preference for order and control, or flexibility and spontaneity respectively.

Individuals use all of the behaviors described in type

⁵⁶ Idem., Introduction To Type, (Palo Alto: Consulting Psychologists Press, 1986), p.2. *Yara-Briggs) And Classroom Observation Data", Research In Psychological Type 6, 1983, 37-46.*

theory but prefer or tend to the dominant. It is this preference which makes one individual's overall behavior different from that of another individual.

The Relationship Of Psychological Type To Teaching

DeNovellis and Lawrence⁵⁷ correlated selected classroom behaviors of seventy nine middle and elementary school teachers with their respective scores on Myers-Briggs Type Indicator (MBTI) scales. Introverted teachers provided more structured activities and less pupil choice of materials or activities. Sensing teachers were also teacher centered which indicated they allowed less pupil choice of activities. Intuitive teachers, on the other hand, encouraged more pupil choice of activities. Feeling type teachers showed more verbal positive affective behavior and more attending to individual students than thinking type teachers. The authors hypothesized that personality type was related strongly to classroom control behavior. Extraverted thinking teachers exhibited high control behavior and extraverted feeling teachers the least.

It appears that teachers' natural inclinations for certain classroom climates, for expression of affect and for control of student

⁵⁷Richard DeNovellis and Gordon Lawrence, "Correlations Of Teacher Personality Variables (Myers-Briggs) And Classroom Observation Data", Research In Psychological Type 6, 1983, 37-46.

behaviors...all of which have a potential bearing on teacher effectiveness with students....can be usefully studied in the patterns provided by the MBTI.⁵⁸

Hoffman and Betkouski concluded, after an extensive review of the literature, that the personalities of "teachers as a group are different from the general population."⁵⁹ In terms of psychological type the most effective teachers tend to prefer extraversion, intuition, feeling and, judgement. Sensing-judgement and intuition-feeling combinations comprise 90% of teacher ranks. The outgoing friendly teachers (EF's), organized systematic teachers (J's), and imaginative teachers (N's) comprise this ENFJ profile. The extraverted, sensing, thinking, judging (ESTJ) profile was most common for male teachers and principals, and extraverted, sensing, feeling, judging (ESFJ) for female teachers. There was also an observation that sensing, feeling and judging factors predominate in lower grades and introversion and intuition for teachers in higher levels up to and including college.

Keirsey and Bates⁶⁰ used temperament theory to describe variations in classroom behaviors of teachers.

⁵⁸Ibid., p.45.

⁵⁹Jeffrey Hoffman and Marianne Betkouski, "A Summary Of Myers-Briggs Type Indicator Research Applications In Education", Research In Psychological Type 3, 1981, 3-41.

⁶⁰David Keirsey and Marilyn Bates, Please Understand Me, (Del Mar, California: Prometheus Nemesis Book Company, 1984): 155-165.

Temperament theory was based upon the Jung-Myers analysis of psychological type. It was unique in its emphasis on certain combinations of type dimensions as the foundation of four basic Temperaments: Dionysian (SP's), Epithemian (SJ's), Promethian (NT's), and Apollonian (NF's). Sensing-perceptive teachers tended to be unplanned in their activities and tended to an entertaining spontaneous style. They provided a considerable amount of student choice and freedom in learning activities. Sensing-judgemental teachers were more planning and structure oriented. They provided less pupil freedom of choice. They also did not provide much positive feedback. Intuitive-thinking teachers were more impersonal in their approaches to students and were more subject-centered. They gave little positive feedback or signs of appreciation to students. They also had little patience with needless paperwork and administrative requirements. These teachers tended to gravitate to higher education, particularly in fields of mathematics and science. Intuitive-feeling teachers allowed considerable pupil freedom of choice and related well to individual students. This was characterized by individualized instruction, willingness to change methods to meet individual needs, and sensitivity to their own emotions and the feelings of others.

A psychological type study involving in-depth interviews of all eighteen outstanding university professors identified by The Council for the Advancement and Support of Education was

reported by Provost, Carson and Biedler.⁶¹ Nine of the eighteen preferred extraversion, intuition, thinking and judgement (ENTJ's), and few sensing types were present. There was significant evidence that these findings were not representative or typical of a large sample of university professors. Individual professors, in the studied sample, concluded that type analysis helped them understand why they taught as they did. Knowledge of their type aided them in tailoring their teaching approach to be sure they met the learning needs of their students and not just their own preference for a particular way to teach. Specific teaching behaviors, which emphasized the professor's love of ideas and concepts, contrasted strongly with their student's struggle to learn specific data. When teaching behaviors were adjusted to meet student needs, there was an improvement in student learning. The authors stressed the potential of conflict between various teacher presentation styles and student learning styles in all types of education. They stated that unless a teacher was conscious of this possible clash in styles he or she would not be able to optimize student learning.

The tendency of educators to be most concerned with the aspects of type development closest to their own type was

Original Type Differences in Education, (Gainesville, Florida: Center for Application of Psychological Type, 1988), p. 266.

⁶¹Judith Provost, Barbara Carson and Peter Beidler, "Effective Teaching And Type: The Words of Outstanding Professors", in Applications Of The Myers -Briggs Type Indicator In Higher Education, Judith Provost and Scott Anchors ed(s), (Palo Alto: Consulting Psychologists Press, 1987): 221-245.

stressed by McCauley and Natter.⁶² This reflected, again, the natural tendency to teach and view the world in terms of one's own type. "What type theory adds is the understanding of the road each person takes to excellence - which process will be most interesting for him, and which will be most difficult".⁶³

Lawrence⁶⁴ summarized the influence of type on teaching styles based upon his earlier work with DeNovellis and data on studies of type archived at the Center for Application of Psychological Type in Gainesville Florida. He found that extraverted teachers provided more student choice of learning tasks, and were more aware of student activities while introverted teachers centered classroom control on themselves. Lawrence concluded that sensing teachers emphasized facts and specific skills. Intuitive teachers favored concepts, broad understanding of interrelationships, and gave a wide range of choices. Sensing teachers maintained control of choices of learning activities in the classroom. Thinking type teachers gave little feedback on performance and had students focus on the teachers actions. Feeling types gave more individualized student attention and focused on the relationship aspects of

⁶²Mary McCauley and Frank Natter, Psychological (Myer's Briggs) Type Differences in Education, (Gainesville, Florida: Center For Applications Of Psychological Type, 1980), p. 206.

⁶³Ibid., p.208.

⁶⁴Gordon Lawrence, People Types And Tiger Stripes, (Gainesville, Florida: Center For Applications Of Psychological Type, 1982): 79-81.

student inputs to learning activity. Judging types tended to be orderly with a preference for structure and tight schedules.

Fry,⁶⁵ studied complex learning environments by using measures linked to psychological type research. He found support for the importance of potential for feedback, evaluation of performance and specific teacher roles that facilitate learning. He concluded that student learning environments in which specific feedback was provided by teachers was found most effective by students. Further, a friendly teacher who helped the student was preferred to the hard driving ,scheduled, authoritative taskmaster and the non-directive concept oriented teacher. Fry stressed that teacher behavior is an extremely important determinant of the learning climate in any learning situation.

Golay⁶⁶ developed a classification of learning styles using Keirsian temperament theory. Temperament theory explained the influence of specific combinations of the dimensions of type on an individual's behavior. To avoid mismatches between student learning style and characteristics of the learning environment, Golay recommended teacher awareness of student learning characteristics and management of the learning

⁶⁵Ronald Fry, "Diagnosing Professional Learning Environments: An Observational Framework For Assessing Situational Complexity", (Ph.D. Dissertation: Massachusetts Institute Of Technology, 1978): 173-197.

⁶⁶Keith Golay, Learning Patterns And Temperament Styles, (Newport Beach: Manas-Systems, 1982): 27-50.

environment. The classroom manager is required to exercise the roles of auditor of performance, monitor or first hand observer of performance, instructor and assessor of ultimate performance. He stated, "the teacher is not at all different from the coach of a team. A good team can make few achievements under poor coaching. A poor team can make more achievement under effective coaching."⁶⁷ This work also suggested the importance of providing appropriate feedback on performance and adjusting teaching style to individual learner needs.

PSYCHOLOGICAL TYPE AND MANAGEMENT

Based on her experience of conducting workshops and seminars for managers, Hirsh⁶⁸ advocated the use of psychological type analyses for organizations conducting training in the areas of management development, team building, creative problem solving, and time management. She found the concepts of type helpful to trainers in understanding various management behaviors and in implementing strategies to change behavior. She concluded that managers have a propensity to behave according to the characteristics associated with their psychological type.

A management communication style model, based upon Jung's

⁶⁷Ibid., p.60.

⁶⁸Hirsh, Using The MBTI, pp.5-7.

concept of psychological type, was developed by Mok.⁶⁹ Mok used the intuition-sensation and thinking-feeling dimensions of type theory to develop a measurement instrument. Data gathered from this instrument was found useful to managers in making selection decisions, development, team building, and in coaching and counseling situations. This work focused on understanding the effects of style differences and similarities on the boss-subordinate relationship.

Zemke⁷⁰ reviewed a number of approaches to using behavioral style psychology including Jungian type analysis in organizations. He concluded that differences in style were important and stable factors, and that styles were observable by others and, indeed, a basis upon which judgements about people were made:

There are so many pieces of you and I to interact within a social situation, we should be completely unknowable to any one-and that's exactly the point. Behavioral Style is most likely that interaction, not the myriad things which we are that people can't see and which are often referred to as personality. The idea that our personal identity is at least partly the observations and responses of others, that we develop a stable self when we come to see ourselves as we imagine others to see us is a dynamic, powerful idea and one

⁷¹Ibid.

⁷²Kiersey and Bates. Please Understand Me, p.133.

⁶⁹Mok, I Speak, p.5.

⁷⁰Ron Zemke, "Better Ways To Help Train People", Training, (August, 1976): 12-16. David Kolb, Assessing Guide for the Learning Style Inventory, (Boston: McGraw and Company, 1986): 83-87.

which simplifies many things and puts much into perspective.⁷¹

Kiersey and Bates⁷² provided an extensive classification of management behavior using temperament theory. The intuitive-feeling manager was characterized by a people orientation, the intuitive-thinking manager as a conceptual change agent with less emphasis on interpersonal skills, the sensing-judging manager as a rule driven traditionalist who was tight on schedules and details, and the sensing-perceptive manager as a present oriented fire fighter, with little patience for advance planning or procedures. Many of the management behaviors attributed to specific temperaments directly related to the proper conduct of coaching activities and behaviors such as performance reviews and providing feedback.

David Kolb's⁷³ work on learning styles was linked to the literature on the Jung-Myer's type theory. Smith and Kolb⁷⁴ used the Learning Styles Inventory to identify a number of specific management behavior patterns. They indicated that there was evidence that specific behavioral styles were common in those in specific management specialties. Those who chose

⁷¹Ibid., p.13.

⁷²Kiersey and Bates, Please Understand Me, p.133.

⁷³David Kolb, Experiential Learning, (Englewood Cliffs, New Jersey: Prentice-Hall Inc.,1984): 78-85.

⁷⁴Donna Smith and David Kolb, Users Guide For The Learning Style Inventory, (Boston: McBer and Company, 1986): 83-87.

Marketing and General Management tend toward extraversion and sensation; those in Engineering, extraversion and thinking; those in pure Science or Research, introversion and intuition ; those in Personnel, sensation and feeling. Kolb hypothesized that individuals select themselves into positions that require skills in which they were proficient. He concluded that those who did not have the skills to adapt to the situational demands of a specialty or field, tended to leave the field or were selected out.

Summary

The review of literature on coaching defined an identifiable pattern of specific behaviors which were seen as important in helping subordinates develop knowledge and skills necessary to improve performance. The literature frequently used samples of managers coaching other subordinate managers or managers coaching professional subordinates. There was no consistency in sample population. Little evidence was presented on how much coaching took place or what patterns of coaching behavior occurred.

The literature on psychological type and teaching presented a similar diversity of setting, subjects and methodology. Subjects ranged from elementary school children and teachers, to university students and professors. There appeared to be differences in type among the teachers that

depended upon the level of teaching in which they were engaged. Further, the literature on type and management presented a great variety of situations studied with little consistency of methodology or statistical analysis. This study took the next step, which was to systematically examine the effects of psychological type upon the coaching (teaching) behavior of managers in a carefully defined manager-subordinate relationship and environment.

The purpose of this study was to examine the relationship between the dimensions of psychological type and coaching activities, coaching behaviors, and coaching effectiveness in corporate middle managers. This chapter describes the sample population studied, the hypotheses, instrumentation, procedures and treatment of the data.

Population

The population studied consisted of a group of 30 middle manager volunteers from a nationwide population of 190 middle managers in a Fortune 500 high technology corporation. A single corporation was used to insure an environment of consistent policy and procedure for performance appraisal, performance planning, and career development procedures. Managers were drawn from the functions of sales, service, manufacturing, engineering, research, and marketing. Each manager was randomly paired with one professional subordinate who was selected at

CHAPTER III

DESIGN OF THE STUDY

The purpose of this study was to examine the relationship between the dimensions of psychological type and coaching activities, coaching behaviors, and coaching effectiveness in corporate middle managers. This chapter describes the sample population studied, the hypotheses, instrumentation, procedures and treatment of the data.

Population

The population studied consisted of a group of 90 middle manager volunteers from a nationwide population of 190 middle managers in a Fortune 500 high technology corporation. A single corporation was used to insure an environment of consistent policy and procedure for performance appraisal, performance planning, and career development procedures. Managers were drawn from the functions of sales, service, manufacturing, engineering, research, and marketing. Each manager was randomly paired with one professional subordinate who was selected at

random from the manager's staff. Managers selected were at a level between supervisors of hourly paid employees and directors who primarily manage other managers. The population was selected from divisions within the organization with consistent policies and procedures for performance appraisal, career development discussions, performance planning requirements, and access and availability of internal corporate educational resources. These choices were necessary to provide the greatest possible control for environmental factors which could possibly influence coaching decisions.

Hypotheses

This study was designed to examine the relationship of psychological type to coaching activities and coaching effectiveness in corporate middle managers. Specifically eleven hypotheses were tested. The eleven Hypotheses were:

Hypothesis 1: There is no significant relationship between the psychological type of managers as measured by the Myers Briggs Type Indicator (MBTI), and time spent in coaching activity areas as measured by manager and subordinate responses on the Research Survey of Coaching Activity (RSCA).

Hypothesis 2: There is no significant relationship between the psychological type of managers as measured by the MBTI, and any of the six specific coaching behaviors measured by manager and subordinate responses on the RSCA.

Hypothesis 3: There is no significant relationship between the psychological type of managers as measured by the MBTI, and congruence of manager and subordinate responses on time spent in coaching activity areas or any of the six specific coaching behaviors measured by the RSCA.

Hypothesis 4: There is no significant relationship between the psychological type of managers as measured by the MBTI, and manager or subordinate coaching effectiveness ratings measured by the RSCA.

Hypothesis 5: There is no significant relationship between the psychological type of managers as measured by the MBTI, and manager ratings of coaching difficulty as measured by the RSCA.

Hypothesis 6: There is no significant relationship between the psychological type of managers as measured by the MBTI, and functional work assignment designations for those managers.

Hypothesis 7.: There is no significant relationship between time spent in coaching activity areas and coaching effectiveness ratings as measured by either manager or subordinate responses to these items on the RSCA.

Hypothesis 8: There is no significant relationship between time spent in coaching activity areas and coaching difficulty ratings as measured by manager responses to these items on the RSCA.

Hypothesis 9: There is no significant difference in amount of time spent in coaching activity areas, measured by Manager responses on the RSCA, between managers forty-five years of age and over and managers forty-four years of age and younger.

Hypothesis 10: There is no significant relationship between manager or subordinate coaching effectiveness ratings as measured by the RSCA and manager coaching difficulty ratings measured by the RSCA.

Hypothesis 11: There is no significant relationship between manager or subordinate RSCA coaching effectiveness ratings and manager or subordinate ratings on any of the six specific coaching behaviors measured by the RSCA.

The Instruments

Two instruments were used to gather data for this study. These were the Myers-Briggs Type Indicator (MBTI), (appendix A), and the Research Survey Of Coaching Activity, (appendix B).

The Myers- Briggs Type Indicator

The Myers-Briggs Type Indicator (MBTI), a 166 question self-report test instrument, was designed to measure an individual's preferences for activities indicative of the dimensions of psychological type.⁷⁵ The instrument provided summary scores on the dimensions of extraversion-introversion, sensation-intuition, feeling-thinking, and judgement-perception. The MBTI Form F, research version, was used to provide the most accurate data to differentiate preferences for the dimensions measured. The instrument had separate test booklets and answer sheets. Instructions for completion were included in the test booklet. Data from split-half correlations and test retest studies were available to support the reliability of the instrument.⁷⁶ Reliability coefficients for the extraversion-introversion dimension ranged from .73 to .83, for the sensation -intuition dimension coefficients ranged from .69 to .87, the thinking-feeling dimension ranged from .56 to .82, and the judgement-perception dimension ranged from .60 to .87. Extensive data supporting validity of the MBTI was

⁷⁷Ibid., 175-223.

⁷⁸Review Of The Myers-Briggs Type

⁷⁵Myers, Guide To The Myers-Briggs Type Indicator, 140-163.

⁷⁶Ibid., 164-174.

and Richard Sweetland, "The Myers-Briggs Type Indicator", in Test Critiques, (Kansas City, Missouri: Test Corporation Of America, 1984) 1: 482-490.

derived from comparisons of MBTI scales with other measures of similar scales on validated personality tests. The validity of the MBTI was also supported by studies of the distribution of types within specified occupations. Predicted frequency of type distributions in occupations were confirmed by comparisons of actual and predicted distributions of MBTI scores of individuals within those specified occupations.⁷⁷ Reviews of The MBTI by Devito⁷⁸ and Keyser and Sweetland⁷⁹ also supported ease of use, research applications, validity and reliability.

The Research Survey Of Coaching Activity

The Research Survey Of Coaching Activity was designed specifically for this study by the researcher. The instrument was designed in two versions. The first version was a self-report instrument for managers. The second version was for the report of observations of the same manager behaviors by a direct subordinate employee. The coaching activities measured by the instrument were overt observable behaviors. The coaching items chosen were selected only if they received significant support

⁷⁷Ibid., 175-223.

⁷⁸Anthony Devito, "Review Of The Myers-Briggs Type Indicator", in The Ninth Mental Measurements Yearbook, ed. James Mitchell, Jr. (Lincoln, Nebraska: Buros, 1985) 2: 1030-1032.

⁷⁹Danial Keyser and Richard Sweetland, "The Myers-Briggs Type Indicator", in Test Critiques, (Kansas City, Missouri: Test Corporation Of America, 1984) 1: 482-490.

from at least three sources in the literature. The items had high face validity since they measured observed behavior as opposed to hypothetical constructs or attitudes.

Measures of frequency and duration were chosen as the most objective, yet scaled, indices of whether or not a specified item on the RSCA occurred or did not occur. The instrument measures a situation which did or did not occur from the reports of the only two observers or participants in the situation. Subjects were encouraged to check their notes, calendars, secretary records, or diaries, as appropriate, to provide data that was as accurate as possible.

Measures of effectiveness of coaching were individual observations of whether or not they could identify any observable changes in behavior, approaches to the way they conducted their job duties, learning, learning activities or changes in career direction which were influenced by any of the coaching behaviors under study.

Measures of difficulty of coaching items were manager reports of their judgements. They were asked to rank order the coaching items in order of relative difficulty to them personally. Managers were then asked to rate the difficulty of coaching items on a five point scale.

The RSCA coaching items were structured as a modified behaviorally anchored rating scale described by Smith and Lowell V. Hellervik, "The Development and Evaluation of Behaviorally Based Rating Scales". *Journal of Applied Psychology* 57 (No.1, 1973): 15-22.

and Kendall,⁸⁰ and Campbell et al.⁸¹ Further, the RSCA was reviewed by a panel of experts on management and management coaching (Appendix C). The experts were asked to review the specific items of the survey to insure suitability of the scales, accurate descriptions of the essential scale items and to confirm content validity. Modifications to the instrument were made from the recommendations of the panel.

The instrument was pilot tested in its initial stages on a group of fifteen employees and five managers to insure clarity of instructions and relevance of coaching items. Revisions to several item definitions and overall instructions were made after this initial test. After the preliminary design was modified and reviewed by the panel of experts, a second pilot test was conducted on a group of twelve managers and thirteen professional employees. Individuals in this study were interviewed to insure that the instructions were clear and that the items and scales were clear and accurately reflective of their coaching environment. The stability of estimates was checked by a second administration of the survey to this same group. A discussion on estimates of time spent in

⁸⁰Patricia C. Smith and L.M. Kendall, "An Approach To The Construction Of Unambiguous Anchors For Rating Scales". Journal of Applied Psychology 47 (No.2, 1963): 149-153.

⁸¹John P. Campbell, Marvin D. Dunnette, Richard D. Arvey and Lowell V. Hellervik, "The Development and Evaluation of Behaviorally Based Rating Scales". Journal of Applied Psychology 57 (No.1, 1973): 15-22.

coaching and individual management coaching behaviors indicated stability of estimates as individuals reviewed, compared and discussed their own responses. Thus, content validity, response stability and construct validity were established for the RSCA.

individuals in the study if it became necessary to fill in any missing information.

Procedures

Treatment of Data

The Senior Human Resource Managers responsible for the organization units of the individual managers studied were contacted. They were asked to assist in subject selection and in organizing the study to gather double-blind data to insure anonymity of response. The researcher and Human Resource Managers generated computer reports of all managers and direct reports who met the criteria of organizational level. Also, it was necessary to exclude any employee under disciplinary action or who had a personnel action (grievance, complaint, potential discharge) pending. Any employee who was on probation, recently hired or pending retirement was also excluded. Individual managers were then contacted in person by either the Human Resource Manager or the investigator. They were given a letter of instruction and asked to contact the designated randomly selected matched subordinate to ask for their participation in the study. It was necessary to let subordinates know that their manager approved of their participation and that their responses would be held in confidence. Manager and matched employee

volunteers were then given numbered packets which included all instructions and questionnaires. Preaddressed return envelopes were included. The Human Resource Managers maintained the coded list of names of individuals. This list was used to contact individuals in the study if it became necessary to fill in any missing information.

Treatment of Data

Data from MBTI forms was scored and along with RSCA responses was placed into a database file of SPSS for subsequent analysis.⁸² A Pearson Product moment correlation coefficient was used to test for the relationship between designated variables stated in Hypotheses 1-5, 7-8, and 10. The correlation coefficient r measures the relationship between variables on a scale of +1 to -1. A value of $r=0$ indicates that there is no relationship between two variables. An r of +1 or -1 indicates a perfect positive or negative linear relationship respectively.⁸³

MBTI data was scored to produce continuous scores on the factors of extraversion-introversion, sensation-intuition, thinking-feeling, and judgement-perception. This is a method

⁸²Marija Norusis, SPSS / PC + V2.0 Base Manual, (Chicago: SPSS Inc., 1988).

⁸³Sam Kachigan, Statistical Analysis, (New York: Radius Press, 1986), p.204.

⁸⁶Macdald, Applications, p.254.

for correlational studies recommended by Macdaid:

The MBTI continuous score was created explicitly for the purpose of correlational research. The procedure for creating these scores takes otherwise discontinuous preference scores generated from a measure of dichotomous preferences and mathematically gives them continuous characteristics. The MBTI continuous scores then are simply a recalculation of the preference scores where a score of zero would have a value of 100, the preference scores for E,S,T, and J are subtracted from 100, and the preference scores for I,N,F, and P are added to 100. Thus instead of an E score or an I score, one has an EI score. For example, a preference score of E-11 yields a continuous score of 89, while a preference score of I-35 yields a continuous score of 135.⁸⁴

To determine if there was an equal or unequal distribution of types among the business functions sampled (eg. Sales or Manufacturing) as stated in Hypothesis 6, a Chi square design was used.⁸⁵ Chi square is applied to test if the observed frequency of occurrence of categorical data differs significantly from a mathematically expected distribution of the data. This use of Chi square is found in studies of distribution of psychological types.⁸⁶

A t-test was used to test for differences in coaching

⁸⁴Gerald Macdaid, "Research Approaches Using The MBTI", in Applications Of The Myers-Briggs Type Indicator In Higher Education, ed(s) Judith Provost and Scott Anchors, (Palo Alto: Consulting Psychologists Press, 1987), p.257.

⁸⁵Kachigan, Statistical Analysis, p.343.

⁸⁶Macdaid, Applications, p.254.

activity between high and lower age grouped managers as stated in Hypothesis 9.⁸⁷ The t-test is a technique used to test for significant differences between the means of two independent samples of data. To control for possible variations in perceptions of managers and their employees on RSCA coaching data, scores of managers and employees on each item were all used in separate calculations on each item. All testing took place at the .05 level of significance.

Summary

This study gathered data for 90 middle managers and a paired subordinate for each. The managers were tested for psychological type preferences using the Myers-Briggs Type Indicator. Both managers and employees were asked to complete the Research Survey of Coaching Activity, an instrument specially designed by the researcher to measure observable coaching practices identified in the coaching literature. Data were analyzed using correlation coefficients, Chi square and t-tests at the .05 level of significance.

⁸⁷George Ferguson, Statistical Analysis In Psychology And Education, (New York: McGraw-Hill Book Company, 1959), 136-137.

CHAPTER IV

RESULTS

Chapter IV presents the findings of the analyses of data for all of the hypotheses of the study. Each hypothesis is restated and the method of statistical analysis of data concerning each hypothesis is specified. Variables examined for each hypothesis are stated and significant results are indicated. The data for each analysis is presented in tables that accompany the text and a summary of the results is provided.

Hypothesis 1

Hypothesis 1 was stated as follows: there is no significant relationship between the psychological type of managers as measured by the Myers-Briggs Type Indicator, and time spent in coaching activity areas as measured by manager and subordinate responses on the Research Survey of Coaching Activity. Pearson product moment correlation coefficients were significant. The manager coefficient for day-to-day coaching ($r = -.231$) was also significant. On the SN dimension the

calculated for manager and subordinate estimates of time spent in each of the six coaching activity areas and manager continuous scores on the four scales of the MBTI, which included extraversion-introversion (EI), sensation-intuition (SN), thinking-feeling (TF), and judgement-perception (JP). The criterion for rejecting the null hypothesis was expected to be a significant correlation between any dimension of type and time spent in coaching activity. Since there were six coaching activity areas studied (annual performance appraisal, periodic performance appraisal, performance planning, day-to-day coaching, showing how to do, and future responsibility discussions) an overall criterion for significance of coaching activity was established. Overall coaching activity was deemed significant by the investigator if there was a significant correlation in three of the six activity areas for subordinate or manager scores, or a minimum of two significant scores on subordinate or manager activity data and one significant score for any coaching activity of the partner.

Table 1 presented the results for correlating time spent in coaching with the dimensions of psychological type. All correlations at the .05 level were deemed significant. On the EI dimension subordinate coefficients for showing how to do ($r = -.186$) and future responsibility discussions ($r = -.198$) were significant. The manager coefficient for day-to-day coaching ($r = -.231$) was also significant. On the SN dimension the

TABLE 1

**CORRELATIONS OF COACHING ACTIVITY TIME ESTIMATES OF MANAGERS AND SUBORDINATES
WITH MANAGER PSYCHOLOGICAL TYPE DIMENSION SCORES**

Coaching Activity	Source Of Time Estimates	Manager Psychological Type Dimensions			
		E-I	S-N	T-F	J-P
Annual Appraisal	Manager	-.089	.210*	-.199*	-.135
	Subordinate	-.078	.031	-.093	-.100
Periodic Appraisal	Manager	.004	-.025	-.038	-.019
	Subordinate	-.051	.153	-.060	.031
Performance Planning	Manager	-.067	.034	-.053	-.075
	Subordinate	-.077	.153	-.122	-.090
Day-To-Day Coaching	Manager	-.231*	.209*	.087	-.116
	Subordinate	-.091	.095	-.053	-.018
Showing How To Do	Manager	-.088	-.012	.136	-.030
	Subordinate	-.186*	.236*	-.146	.004
Future Responsibility Discussions	Manager	.056	.154	-.063	-.186*
	Subordinate	-.198*	.166	-.094	-.054

N=90

df=88

*p<.05

Notes: The dimensions of psychological type are extraversion-introversion (E-I), sensation-intuition (S-N), thinking-feeling (T-F), and judgement-perception (J-P)

Time estimates are in minutes

subordinate r for showing how to do ($r=.231$) and the manager correlations for annual appraisal ($r=.210$) and day-to-day coaching ($r=.209$) were significant. On the TF dimension the manager r for annual appraisal ($r=-.199$) was significant. The manager score for future responsibility discussions ($r=-.186$) was significant for the JP dimension. The correlation patterns for the EI and SN dimensions of psychological type met the criteria for rejecting Hypothesis 1.

Hypothesis 2

Hypothesis 2 was stated as follows: there is no significant relationship between the psychological type of managers as measured by the Myers-Briggs Type Indicator, and any of the six specific coaching behaviors measured by manager and subordinate responses on the Research Survey of Coaching Activity. Pearson product moment correlation coefficients were computed for manager continuous scores on the MBTI and subordinate and manager scores for the six behaviors positive feedback, negative feedback, direction, facts and concepts, schedules, and development. The criterion for rejection of the hypothesis was a significant relationship between any of the dimensions of psychological type and at least three of the six coaching behaviors. A behavior was deemed significantly related if there were significant correlations for either subordinate or manager data in three of the coaching activity categories.

Significant correlations could be in the manager or subordinate scores or two in one and a third in the partner's data.

Table 2 presented the results for positive feedback. On the EI scale significant correlations at the .05 level for subordinate data were in the coaching activity areas of day-to-day coaching ($r=-.338$), future responsibility ($r=-.364$), and most typical behavior ($r=-.297$). Manager data was significant for performance planning ($r=-.219$), and day-to-day coaching ($r=-.176$). On the SN scale subordinate correlations were significant for showing how to do ($r=.236$) and future responsibility ($r=.240$). The manager correlation for day-to-day coaching ($r=.314$) was also significant. There were no significant correlations on the TF or JP psychological type scales. The relationship of positive feedback with type met the criterion for significance of the behavior.

Table 3 presented the results for negative feedback. There was one significant correlation for subordinate SN scale data, ($r=.194$). Manager data showed significant correlations for day-to day coaching ($r=-.180$) on the EI scale and both performance appraisal ($r=-.193$) and performance planning ($r=-.189$) on the JP scale. Data for negative feedback behavior did not meet the overall criterion for significance specified.

The data in Table 4 presented correlations for the relationship of the dimensions of type with direction of coaching discussions. Subordinate correlations for performance appraisal

TABLE 2

CORRELATIONS OF MANAGER AND SUBORDINATE SCORES FOR POSITIVE FEEDBACK BEHAVIOR
WITH MANAGER PSYCHOLOGICAL TYPE DIMENSION SCORES

Coaching Activity	Source Of Behavior Scores	Manager Psychological Type Dimensions			
		E-I	S-N	T-F	J-P
Performance Appraisal	Manager	.063	-.058	.106	.048
		-.075	-.066	-.055	-.056
Performance Planning	Manager	-.219*	-.059	-.052	-.166
		-.164	.099	.080	.024
Day-To-Day Coaching	Manager	-.176*	.314*	-.062	-.033
		-.338*	.122	.049	.124
Showing How To Do	Manager	-.160	.028	-.018	-.065
		-.145	-.236*	.027	.102
Future Responsibility Discussions	Manager	.024	.080	-.041	-.073
		-.364*	.240*	.079	.142
Most Typical Behavior	Manager	-.113	.089	.025	-.153
		-.297*	.142	.026	.020

N=90

df=88

*p<.05

NOTE: The dimensions of psychological type are extraversion-introversion (E-I), sensation-intuition (S-N), thinking-feeling (T-F), and judgement-perception (J-P)

TABLE 3

CORRELATIONS OF MANAGER AND SUBORDINATE SCORES FOR NEGATIVE FEEDBACK BEHAVIOR
WITH MANAGER PSYCHOLOGICAL TYPE DIMENSION SCORES

Coaching Activity	Source Of Behavior Scores	Manager Psychological Type Dimensions			
		E-I	S-N	T-F	J-P
Performance Appraisal	Manager Subordinate	-.056 .073	-.028 -.054	.029 .029	-.193* -.108
Performance Planning	Manager Subordinate	-.151 .009	-.054 -.061	-.033 -.081	-.189* .045
Day-To-Day Coaching	Manager Subordinate	-.180* -.035	.039 .067	-.163 -.077	-.034 .071
Showing How To Do	Manager Subordinate	-.121 .001	.098 .194*	-.094 -.102	-.070 .074
Future Responsibility Discussions	Manager Subordinate	-.158 -.000	.095 .145	-.097 -.126	-.015 .202
Most Typical Behavior	Manager Subordinate	-.172 .020	.069 -.075	-.175 .000	-.156 -.034

N=90
df=88
*p<.05

NOTE: The dimensions of psychological type are extraversion-introversion (E-I), sensation-intuition (S-N), thinking-feeling (T-F), and judgement-perception (J-P)

TABLE 4

CORRELATIONS OF MANAGER AND SUBORDINATE SCORES FOR COACHING DIRECTION BEHAVIOR
WITH MANAGER PSYCHOLOGICAL TYPE DIMENSION SCORES

Coaching Activity	Source Of Behavior Scores	Manager Psychological Type Dimensions			
		E-I	S-N	T-F	J-P
Performance Appraisal	Manager Subordinate	.033 -.226*	.055 .052	-.115 .033	-.036 .118
Performance Planning	Manager Subordinate	-.138 -.038	-.159 .075	-.020 .098	-.066 .022
Day-To-Day Coaching	Manager Subordinate	-.051 -.146	-.016 .219*	.052 -.020	.062 .056
Showing How To Do	Manager Subordinate	-.143 -.146	.094 .248*	.200* .049	.069 .054
Future Responsibility Discussions	Manager Subordinate	-.076 -.068	.082 .135	.086 .030	.000 .213*
Most Typical Behavior	Manager Subordinate	-.146 -.094	-.046 .096	.037 .041	-.021 .144

N=90
df=88
*p<.05

NOTE: The dimensions of psychological type are extraversion-introversion (E-I), sensation-intuition (S-N), thinking-feeling (T-F), and judgement-perception (J-P)

($r = -.226$) on the EI scale, day-to-day coaching ($r = .219$) and showing how to do ($r = .248$) on the SN scale, and future responsibility ($r = .213$) on the JP scale were significant at the .05 level. There were no corresponding significant scores for managers on any of these scales. The only significant manager correlation was for showing how to do ($r = .200; p < .05$) on the TF scale. Data on coaching direction did not meet the overall criterion for significance specified.

Table 5 presented results for the correlation of the dimensions of psychological type with manager emphasis on facts or concepts. There were no significant correlations on the EI scale. Subordinate data for the SN scale shows four apparently significant correlations for day-to-day coaching ($r = .174$), showing how to do ($r = .188$), future responsibility discussions ($r = .241$), and most typical behavior ($r = .208$) but they are not in the predicted direction. They do not therefore meet the established criterion for significance. Manager correlations for performance planning on the SN scale ($r = -.204$), future responsibility discussions on the TF scale ($r = .249$) and day-to-day coaching ($r = -.177$) and most typical behavior of the manager ($r = -.309$) on the JP scale were significant at the .05 level. Data for manager emphasis on facts or concepts did not meet the overall criterion for significance specified.

Table 6 provided the correlations for psychological type with the manager's adherence to schedules in coaching

TABLE 5

CORRELATIONS OF MANAGER AND SUBORDINATE SCORES FOR FACT OR CONCEPT BEHAVIOR
WITH MANAGER PSYCHOLOGICAL TYPE DIMENSION SCORES

Coaching Activity	Source Of Behavior Scores	Manager Psychological Type Dimensions			
		E-I	S-N	T-F	J-P
Performance Appraisal	Manager	-.043	-.094	-.023	-.098
	Subordinate	.002	.071	.049	-.063
Performance Planning	Manager	-.050	-.204*	.048	-.146
	Subordinate	-.002	.153	.078	-.026
Day-To-Day Coaching	Manager	.117	.035	.045	-.177*
	Subordinate	-.121	.174	.087	.064
Showing How To Do	Manager	-.045	.052	.068	-.061
	Subordinate	-.111	.188	.053	-.014
Future Responsibility Discussions	Manager	-.042	-.010	.249*	-.140
	Subordinate	-.109	.241	.090	.030
Most Typical Behavior	Manager	-.032	-.132	-.053	-.309*
	Subordinate	-.025	.208	.052	.000

N=90

df=88

*p<.05

NOTE: The dimensions of psychological type are extraversion-introversion (E-I), sensation-intuition (S-N), thinking-feeling (T-F), and judgement-perception (J-P)

TABLE 6

CORRELATIONS OF MANAGER AND SUBORDINATE SCORES FOR ADHERENCE TO SCHEDULES
WITH MANAGER PSYCHOLOGICAL TYPE DIMENSION SCORES

Coaching Activity	Source Of Behavior Scores	Manager Psychological Type Dimensions			
		E-I	S-N	T-F	J-P
Performance Appraisal	Manager	-.118	-.024	-.250*	-.222*
		-.056	.016	-.093	-.109
Performance Planning	Manager	-.169	-.153	-.031	-.197*
		-.106	.011	.033	-.082
Day-To-Day Coaching	Manager	-.160	-.014	.043	-.162
		-.002	.073	-.093	-.022
Showing How To Do	Manager	-.127	-.048	.006	-.140
		-.083	.212*	-.097	-.029
Future Responsibility Discussions	Manager	-.139	.067	-.022	-.105
		.079	.152	.044	-.046
Most Typical Behavior	Manager	-.171	-.145	-.059	-.290*
		-.056	.177*	.003	-.033

N=90

df=88

*p<.05

NOTE: The dimensions of psychological type are extraversion-introversion (E-I), sensation-intuition (S-N), thinking-feeling (T-F), and judgement-perception (J-P)

activities. There were no significant correlations for the EI scale. Two activity areas showed significant correlations, at the .05 level, for subordinate responses - showing how to do ($r=.212$) and day-to-day coaching ($r=.177$) on the SN scale. There was one significant correlation on the TF scale. Manager data for performance appraisal produced an r of ($-.250, p<.05$). Manager data on the JP scale met the overall criterion for significance of correlation of this behavior with the dimensions of type. Annual appraisal ($r=-.222$), periodic appraisal ($r=-.197$) and future responsibility discussions ($r=-.290$) all showed individual significant correlations with type scores.

Correlations of manager emphasis on the identification of subordinate development needs with the dimensions of type were reported on Table 7. Significant relationships were reported in manager data for the SN scale in the coaching areas of performance appraisal ($r=.178$), day-to-day coaching ($r=.180$) and future responsibility discussions ($r=.221$). Subordinate data for the TF scale also produced significant results. Performance appraisal ($r=-.271$), day-to-day coaching ($r=-.260$) and most typical manager behavior ($r=-.206$) were all significant at the .05 level in the predicted direction. Although there were no significant correlations in the EI or JP scales the overall relationship of psychological type with this specific behavior was deemed significant.

Significant correlations of type with the behaviors of

TABLE 7

CORRELATIONS OF MANAGER AND SUBORDINATE SCORES FOR DEVELOPMENT NEED IDENTIFICATION
WITH MANAGER PSYCHOLOGICAL TYPE DIMENSION SCORES

Coaching Activity	Source Of Behavior Scores	Manager Psychological Type Dimensions			
		E-I	S-N	T-F	J-P
Performance Appraisal	Manager	-.007	.178*	.019	.015
		-.056	.159	-.271*	-.043
Performance Planning	Manager	-.089	-.003	.026	-.085
		-.037	.064	-.158	-.003
Day-To-Day Coaching	Manager	.036	.180*	-.011	-.045
		-.009	.133	-.260*	-.025
Showing How To Do	Manager	-.033	.101	.091	.006
		-.171	.122	-.130	.047
Future Responsibility Discussions	Manager	.053	.221*	-.028	.001
		-.065	.118	-.067	.007
Most Typical Behavior	Manager	.030	.129	-.061	-.073
		-.082	.120	-.206*	-.000

N=90

df=88

*p<.05

NOTE: The dimensions of psychological type are extraversion-introversion (E-I), sensation-intuition (S-N), thinking-feeling (T-F), and judgement-perception (J-P)

positive feedback, schedules, and development need identification met the criteria for rejection of Hypothesis 2. It appeared that there was a relationship between specific managerial coaching behaviors and the type scores of managers on the dimensions of extraversion-introversion, sensation-intuition, thinking-feeling, and judgement-perception. Therefore, Hypothesis 2 was supported in these areas.

Hypothesis 3

Hypothesis 3 was stated as : there is no significant relationship between the psychological type of managers as measured by the Myers-Briggs Type Indicator, and congruence of manager and subordinate responses to time spent in coaching activity areas or any of the six specific coaching behaviors measured by the Research Survey of Coaching Activity. Difference scores were computed between manager and subordinate estimates of time spent in coaching and most typical manager behavior ratings on the six coaching behaviors positive feedback, negative feedback, coaching direction, emphasis on facts or concepts, coaching schedules, and identification of development needs. Using Pearson product moment correlation coefficients these difference scores were correlated with manager continuous scores on the dimensions of psychological type. The hypothesis would be rejected if there were

significant correlations at the .05 level for any of the dimensions of type. A dimension was deemed significant if there were at least three significant correlations for either time spent in the six coaching activity areas or the six specific coaching behaviors.

Table 8 provided data on the results of the time analysis. For time spent in coaching there was a significant correlation for future responsibility discussions on the extraversion-introversion dimension ($r=.218$); periodic appraisal ($r=-.177$), and showing how to do ($r=-.181$) on the sensation-intuition scale; and finally, showing how to do ($r=.195$) on the thinking-feeling scale. The judgment-perception scale had no associated significant correlations. This data did not meet the criterion for significance for differences in time spent and type.

Table 9 presented correlations of the dimensions of type with differences in most typical behavior scores. There were several significant findings at the .05 level. On the EI scale the score for positive feedback was significant ($r=.194$). On the SN scale scores for facts and concepts ($r=-.239$) and adherence to schedules ($r=-.268$) were significant. There were no significant correlations on the TF scale. On the JP scale facts and concepts ($r=-.189$) and adherence to schedules ($r=-.222$) were significant at the .05 level. This data did not meet the criterion for significance of relationship between type

TABLE 8

CORRELATIONS OF MANAGER AND SUBORDINATE TIME CONGRUITY ESTIMATES
WITH MANAGER PSYCHOLOGICAL TYPE DIMENSION SCORES

Coaching Activity	Source Of Time Estimates	Manager Psychological Type Dimensions			
		E-I	S-N	T-F	J-P
Annual Appraisal	Manager And Subordinate	-.001	.129	-.069	-.016
Periodic Appraisal	Manager And Subordinate	.057	-.179*	.035	-.047
Performance Planning	Manager And Subordinate	.032	-.132	.087	.040
Day-To-Day Coaching	Manager And Subordinate	-.147	.126	.102	-.088
Showing How To Do	Manager And Subordinate	.080	-.181*	.195*	-.022
Future Responsibility Discussions	Manager And Subordinate	.218*	-.084	.060	-.038

N=90
df=88
*p<.05

NOTES: The dimensions of psychological type are extraversion-introversion (E-I), sensation-intuition (S-N), thinking-feeling (T-F), and judgement-perception (J-P)

Time estimates are in minutes

TABLE 9

**CORRELATIONS OF MANAGER AND SUBORDINATE BEHAVIOR CONGRUITY SCORES
WITH MANAGER PSYCHOLOGICAL TYPE DIMENSION SCORES**

Coaching Behavior	Source Of Behavior Scores	Manager Psychological Type Dimensions			
		E-I	S-N	T-F	J-P
Positive Feedback	Manager And Subordinate	.194*	-.067	-.006	-.129
Negative Feedback	Manager And Subordinate	-.158	.117	-.145	-.102
Coaching Direction	Manager And Subordinate	-.028	-.118	-.007	.141
Concepts And Facts	Manager And Subordinate	-.000	-.239*	-.072	-.189*
Adherence To Schedule	Manager And Subordinate	-.101	-.268*	-.054	-.222*
Development Needs Identification	Manager And Subordinate	.095	-.004	.132	-.057

N=90
df=88
*p<.05

NOTE: The dimensions of psychological type are extraversion-introversion (E-I), sensation-intuition (S-N), thinking-feeling (T-F), and judgement-perception (J-P)

dimensions and most typical manager behavior congruence scores. Therefore, Hypothesis 3 was accepted. The data did not show a significant relationship between psychological type dimensions and difference scores of managers and subordinates on time spent in coaching or any of the six specific coaching behaviors.

Hypothesis 4

Hypothesis 4 was stated as: there is no significant relationship between the psychological type of managers as measured by the Myers-Briggs Type Indicator, and manager or subordinate coaching effectiveness ratings as measured by the Research Survey of Coaching Activity. Pearson product moment correlation coefficients were calculated for manager and subordinate effectiveness scores on the RASCA and manager continuous scores on the dimensions of psychological type - introversion-extraversion (EI), sensation-intuition (SN), thinking-feeling (TF), judgement-perception (JP). Correlations were calculated for all six areas of coaching activity. The hypothesis was rejected if there were significant correlations between any dimension of type and coaching effectiveness. Coaching effectiveness for a dimension of type was considered significant if there was a significant correlation in three of the six activity areas for subordinate or manager scores, or a minimum of two significant scores on subordinate or manager

effectiveness.

activity data and one significant score for any coaching activity of the partner.

Table 10 presented the results for correlating coaching effectiveness ratings with the dimensions of psychological type. All significant correlations were at the .05 level. On the EI scale there was a significant relationship for subordinate data for performance appraisal ($r = -.197$). Manager data on the E-I dimension indicated significant correlations for performance planning ($r = -.181$) and day-to-day coaching ($r = -.211$). The overall relationship between the EI dimension of type and coaching effectiveness was considered significant.

Correlation patterns for the sensation-intuition dimensions were somewhat similar to the extraversion-introversion dimensions of type. The subordinate correlation for showing how to do ($r = .204$) was significant at the .05 level while the correlations for other activities were not. Manager correlations were significant for day-to-day coaching ($r = .210$) and future responsibility discussions ($r = .234$). Correlations for performance appraisal, performance planning, showing how to do, and most typical behavior were not significant.

There were no significant correlations for either subordinate or manager data for the type dimensions TF or JP. The significant scores for the EI and SN dimensions warranted rejecting Hypothesis 4. There appeared to be a significant relationship between psychological type and coaching effectiveness.

TABLE 10

**CORRELATIONS OF MANAGER AND SUBORDINATE SCORES FOR COACHING EFFECTIVENESS
WITH MANAGER PSYCHOLOGICAL TYPE DIMENSION SCORES**

Coaching Activity	Source Of Behavior Scores	Manager Psychological Type Dimensions			
		E-I	S-N	T-F	J-P
Performance Appraisal	Manager	-.103	.134	-.010	-.027
		-.197*	-.032	.008	.035
Performance Planning	Manager	-.181*	-.002	.059	-.172
		-.118	.053	-.012	-.003
Day-To-Day Coaching	Manager	-.211*	.210*	.078	-.000
		-.109	.151	-.017	.015
Showing How To Do	Manager	-.104	.023	.107	-.023
		-.133	.204*	-.022	.030
Future Responsibility Discussions	Manager	-.024	.234*	.033	-.022
		-.128	.128	.073	.058
Most Typical Behavior	Manager	-.074	.094	.113	-.122
		-.164	.083	-.078	-.014

N=90
df=88
*p<.05

NOTE: The dimensions of psychological type are extraversion-introversion (E-I), sensation-intuition (S-N), thinking-feeling (T-F), and judgement-perception (J-P)

Hypothesis 5

Hypothesis 5 was stated as: there is no significant relationship between the psychological type of managers as measured by the Myers-Briggs Type Indicator, and manager ratings of coaching difficulty as measured by the Research Survey of Coaching Activity. Pearson product moment correlation coefficients were calculated for manager scores on the dimensions of psychological type and manager ratings of coaching difficulty on the RSCA. Correlations were computed for all six coaching activity areas performance appraisal, performance planning, day-to-day coaching, showing how to do, future responsibility discussions, and most typical behavior. The hypothesis was rejected if there were significant correlations in any three of the six activity ratings for any dimension of psychological type.

Table 11 summarized the results for this analysis. There were no significant relationships indicated on either the extraversion - introversion or sensation - intuition dimensions. There was one significant correlation at the .05 level for performance planning on the thinking - feeling scale ($r=.204$) and one significant relationship on the judgement - perception scale ($r=.186$). All other correlations were not significant. These findings did not meet the criteria for

TABLE 11
CORRELATIONS OF MANAGER ESTIMATES OF COACHING DIFFICULTY
WITH MANAGER PSYCHOLOGICAL TYPE DIMENSION SCORES

Coaching Activity	Source Of Difficulty Scores	Manager Psychological Type Dimensions			
		E-I	S-N	T-F	J-P
Performance Appraisal	Manager	.160	-.099	.133	.124
Performance Planning	Manager	-.029	.041	.204*	.055
Day-To-Day Coaching	Manager	.118	.048	.153	.069
Showing How To Do	Manager	-.033	.004	.131	-.010
Future Responsibility Discussions	Manager	-.021	.047	.060	.186*
Most Typical Behavior	Manager	.016	-.085	.100	.138

N=90
df=88
*p<.05

NOTE: The dimensions of psychological type are extraversion-introversion (E-I), sensation-intuition (S-N), thinking-feeling (T-F), and judgement-perception (J-P)

rejection of the null hypothesis. Therefore Hypothesis 5 was accepted. A relationship between coaching difficulty and psychological type was not confirmed by the data.

Hypothesis 6

Hypothesis 6 was stated as follows: There is no significant relationship between the psychological type of managers as measured by the Myers-Briggs Type Indicator, and functional work assignment designations for those managers. A Chi Square contingency table was completed to test for independence of the functional assignment of individual subjects from their distribution on the dimensions of psychological type.

Independent contingency tables were established for the extraversion-introversion, sensation-intuition, thinking-feeling, and judgement-perception dimensions. The functional groups of subjects were engineering, sales and service, manufacturing, research and development, human resources and administration. Chi Square was calculated for each of the contingency tables. A significant Chi Square value at the .05 level of significance for any of the dimensions of type was deemed sufficient reason to reject the null hypothesis. The results of these calculations were presented in Table 12. The Chi Square value for the extraversion-introversion dimension was 11.87, $p < .05$, resulting in the rejection of Hypothesis 6.

The Chi Square values for sensation-intuition, thinking-feeling, and judgement-perception were not significant. The significant Chi Square value for the extraversion-introversion dimension indicated an association between an individual's classification

TABLE 12

CONTINGENCY TABLE SHOWING DISTRIBUTION OF
SUBJECTS ON DIMENSIONS OF PSYCHOLOGICAL TYPE
AND FUNCTIONAL WORK ASSIGNMENT

	Eng. N=19	Sls/Svs. N=14	Manuf. N=24	R&D N=12	H.R. N=10	Admin. N=11	Chi Square
Extraversion	8	10	12	3	8	3	11.87 *
Introversion	11	4	12	9	2	8	
Sensation	8	6	15	5	5	7	3.35
Intuition	11	8	9	7	5	4	
Thinking	13	12	20	9	8	6	4.90
Feeling	6	2	4	3	2	5	
Judgement	15	11	23	10	5	7	10.81
Perception	4	3	1	2	5	4	

* $p < .05$

Note: Eng. = Engineering R&D = Research and Development
Sls/Svs. = Sales and Service H.R. = Human Resources
Manuf. = Manufacturing Admin. = Administration

summarizes the results of the analysis. All correlations for subordinate data were significant at the .05 level: annual appraisal ($r = .362$), periodic appraisal ($r = .277$), performance

The Chi Square values for sensation-intuition, thinking-feeling, and judgement-perception were not significant. The significant Chi Square value for the extraversion-introversion dimension indicated an association between an individual's classification on that dimension and his or her functional assignment. Hypothesis 6 was therefore rejected.

Hypothesis 7

Hypothesis 7 was stated as: there is no significant relationship between time spent in coaching activity areas and coaching effectiveness ratings as measured by either manager or subordinate responses to these items on the Research Survey of Coaching Activity. RASCA time estimates and effectiveness ratings were analyzed by calculating Pearson product moment correlation coefficients for each coaching activity area studied. The hypothesis was rejected if there were significant correlations in three of the six coaching activity areas. Overall significance could be achieved by three significant scores in either the manager or subordinate data, or two significant scores in one and one in the other. Table 13 summarizes the results of the analysis. All correlations for subordinate data were significant at the .05 level: annual appraisal ($r=.362$), periodic appraisal ($r=.277$), performance

planning ($r=.298$), day-to-day coaching ($r=.376$), showing how to do ($r=.368$), and future responsibility discussions ($r=.218$).

Manager correlations for the same items were also all

significant except for periodic appraisal : annual appraisal

($r=.199$), showing how to do ($r=.390$), and future responsibility

($r=.184$), showing how to do ($r=.390$), and future responsibility

discussions ($r=.181$).

TABLE 13

**CORRELATIONS OF COACHING EFFECTIVENESS RATINGS
WITH TIME SPENT IN COACHING ACTIVITY AREAS**

Coaching Activity	Subordinate Score Effectiveness With Subordinate Time Estimates	Manager Score Effectiveness With Manager Time Estimates
Annual Appraisal	.362*	.199*
Periodic Appraisal	.277*	.140
Performance Planning	.298*	.268*
Day-To-Day Coaching	.376*	.184*
Showing How To Do	.368*	.390*
Future Responsibility Discussions	.218*	.181*

N=90

df=88

* $P<.05$

relationship between time spent in coaching activity areas and
difficulty ratings as measured by manager responses to
these items on the Research Survey of Coaching Activity.

Data was analyzed by calculating Pearson product
moment correlation coefficients for subordinate and manager time
estimates from the RSCA and manager difficulty scores from the
RSCA. The criterion for hypothesis rejection was a minimum of
three significant correlations for time and difficulty in any

planning ($r=.298$), day-to-day coaching ($r=.376$), showing how to do ($r=.368$), and future responsibility discussions ($r=.218$). Manager correlations for the same items were also all significant except for periodic appraisal : annual appraisal ($r=.199$), performance planning ($r=.268$), day-to-day coaching ($r=.184$), showing how to do ($r=.390$), and future responsibility discussions ($r=.181$).

This data met the criterion for rejection of Hypothesis 7. There was a demonstrated relationship between time spent in coaching activities and subordinate and manager scores on perception of effectiveness.

Hypothesis 8

Hypothesis 8 investigated the relationship between the amount of time managers spent in coaching activities and the difficulty they reported in conducting those activities. The hypothesis was stated as follows: there is no significant relationship between time spent in coaching activity areas and coaching difficulty ratings as measured by manager responses to these items on the Research Survey of Coaching Activity.

Data was analyzed by calculating Pearson product moment correlation coefficients for subordinate and manager time estimates from the RSCA and manager difficulty scores from the RSCA. The criterion for hypothesis rejection was a minimum of three significant correlations for time and difficulty in any

three or more of the six coaching activity areas. Three significant correlations at the .05 level could be in either manager or subordinate data sets or a combination of two in one and one in the other data set. Table 14 provides the results of the analysis. When subordinate estimates of time were matched with manager estimates of difficulty there were no significant correlations. When manager estimates of time were matched with manager estimates of difficulty there was only one significant correlation for time and difficulty in periodic appraisal ($r=.231$).

The data did not indicate a significant relationship between time spent in coaching activity and the coaching difficulty experienced by managers. Therefore, Hypothesis 8 was accepted.

Planning	.002	-.091
Day-To-Day Coaching	-.082	-.093
Showing How To Do		.008
Future Responsibility Discussions	-.059	.049

Hypothesis 9

Hypothesis 9 was stated as: There is no significant difference in amount of time spent in coaching activity areas, measured by manager responses on the Research Survey of Coaching Activity, between managers forty-five years and older, and managers below forty-five years of age. Manager and subordinate estimates of time spent on the six coaching activity areas was the data analyzed. The data was divided for those managers forty-five years old and above, and forty-four years and below. T-tests were calculated as a test of the significance of

TABLE 14

CORRELATIONS OF COACHING DIFFICULTY SCORES
WITH TIME SPENT IN COACHING ACTIVITY AREAS

Coaching Activity	Manager Score Difficulty With Subordinate Time Estimates	Manager Score Difficulty With Manager Time Estimates
Annual Appraisal	.057	-.050
Periodic Appraisal	.045	.231*
Performance Planning	.002	-.091
Day-To-Day Coaching	-.082	-.093
Showing How To Do	-.093	.008
Future Responsibility Discussions	-.059	.049

N=90

df=88

*p<.05

Hypothesis 10

Hypothesis 10 was stated as: There is no significant relationship between manager or subordinate coaching effectiveness ratings as measured by the Research Survey of

difference between the means of the age-grouped managers for each of the coaching activity areas. Significant differences for any three areas of coaching activity for either subordinate or manager estimates or two significant differences in one estimate and one in the matching estimate was considered necessary for rejection of the null hypothesis. The results of this analysis are presented in Table 15. Subordinate estimates for differences in manager time spent in annual appraisal ($t=-1.85$) and performance planning ($t=-1.94$) were significant at the .05 level. Managers forty-five years and above spent significantly more time in these areas than managers less than forty-five years of age. All other activity areas showed no significant differences. No manager data showed a significant difference in time spent in coaching for managers of either age group tested.

Based upon these findings Hypothesis 9 was accepted. There did not appear to be a significant difference in overall time spent in coaching for managers forty-five and above versus those forty-four and below.

Hypothesis 10

Hypothesis 10 was stated as: There is no significant relationship between manager or subordinate coaching effectiveness ratings as measured by the Research Survey of

TABLE 15

MANAGER AND SUBORDINATE ESTIMATES OF DIFFERENCES IN TIME SPENT
IN COACHING BETWEEN MANAGERS 45 YEARS OLD OR ABOVE AND
MANAGERS 44 YEARS OLD AND YOUNGER

Coaching Activity	Subordinate Time Estimates (Min.)			Manager Time Estimates (Min.)		
	Age Groups	Mean	t	Age Groups	Mean	t
Performance Appraisal	44- 45+	60.4 88.5	-1.85 *	44- 45+	78.4 69.6	.64
Periodic Appraisal	44- 45+	87.0 121.1	-.89	44- 45+	101.0 71.5	1.13
Performance Planning	44- 45+	79.8 306.4	-1.94 *	44- 45+	107.5 207.1	-1.25
Day-To-Day Coaching	44- 45+	299.7 364.4	-.49	44- 45+	750.0 481.8	1.28
Showing How To Do	44- 45+	244.3 222.0	.29	44- 45+	257.6 238.8	.28
Future Responsibility Discussions	44- 45+	83.8 133.0	-1.40	44- 45+	95.5 84.4	.62

N=90

*p<.05

df=88

Hypothesis 11

Hypothesis 11 was stated as: there is no significant relationship between manager or subordinate Research Survey of

Coaching Activity and manager coaching difficulty ratings measured by the Research Survey of Coaching Activity. Pearson product moment correlation coefficients were computed for manager and subordinate effectiveness ratings on the RSCA and manager difficulty ratings on the RSCA for the six coaching activity areas performance appraisal, performance planning, day-to-day coaching, showing how to do, and most typical behavior. The hypothesis was rejected if there were significant correlations for three of the six coaching areas for either the manager or subordinate data sets. Alternatively, two significant correlations in either the subordinate or manager data and one significant score in the other would be acceptable.

Table 16 presented the results of this analysis. There was a significant correlation for difficulty and effectiveness in the performance appraisal category for the subordinate data ($r = -.182; p < .05$). All other subordinate and manager correlations were not significant at the .05 level. The data did not support a relationship between coaching effectiveness and coaching difficulty. The criterion for rejecting the null hypothesis was not met and Hypothesis 10 was, therefore, accepted.

Hypothesis 11

Hypothesis 11 was stated as: there is no significant relationship between manager or subordinate Research Survey of

TABLE 16

**CORRELATIONS OF COACHING DIFFICULTY SCORES
WITH COACHING EFFECTIVENESS SCORES**

Coaching Activity	Manager Score Difficulty With Subordinate Score Effectiveness	Manager Score Difficulty With Manager Score Effectiveness
Performance Appraisal	-.182*	.048
Performance Planning	-.110	.142
Day-To-Day Coaching	-.060	.084
Showing How To Do	.056	.140
Future Responsibility	-.069	-.070
Most Typical Behavior	-.077	-.017

N=90

df=88

*P<.05

Table 17 presented the correlation coefficients for effectiveness scores with positive feedback ratings. All coaching activities produced significant correlations for subordinate data at the $p<.05$ level. These included performance appraisal ($r=.463$), performance planning ($r=.713$), day-to-day coaching ($r=.726$), showing how to do ($r=.605$), future responsibility

Coaching Activity (RSCA) coaching effectiveness ratings and manager or subordinate ratings on any of the six specific coaching behaviors measured by the RSCA. Pearson product moment correlation coefficients were computed for manager and subordinate RASCA effectiveness scores and manager and subordinate scores on the RSCA items positive feedback, negative feedback, amount of direction, emphasis on facts or concepts, schedules, and identification of development needs. Correlations were computed for the coaching activity areas performance appraisal, performance planning, day-to-day coaching, showing how to do, and future responsibility discussions. Hypothesis 11 was rejected if there were significant correlations between effectiveness and any three of the six behaviors studied for either manager or subordinate data. Furthermore, a coaching behavior would be deemed significant if there was a significant correlation in three of the six activity areas for subordinate or manager scores, or a minimum of two significant scores on manager or subordinate activity data and one significant score for any coaching activity of the partner.

Table 17 presented the correlation coefficients for effectiveness scores with positive feedback ratings. All coaching activities produced significant correlations for subordinate data at the $p < .05$ level. These included performance appraisal ($r = .463$), performance planning ($r = .713$), day-to-day coaching ($r = .726$), showing how to do ($r = .605$), future responsibility

discussions ($r=.547$), and most typical behavior ($r=.497$). Similarly, each coaching activity area produced a significant r for manager data at the $p<.05$ level. Specifically, these were performance appraisal ($r=.315$), performance planning ($r=.554$), day-to-day coaching ($r=.340$), showing how to do ($r=.573$), future responsibility discussions ($r=.424$), and most typical behavior ($r=.310$). The overall relationship between effectiveness and negative feedback was considered significant for Hypothesis 11. Table 19 presented the correlation coefficients for effectiveness scores with coaching direction ratings. All coaching activity areas produced correlations at the $p<.05$

TABLE 17

**CORRELATIONS OF COACHING EFFECTIVENESS SCORES
WITH POSITIVE FEEDBACK SCORES**

Coaching Activity	Subordinate Score Effectiveness With Subordinate Score Positive Feedback	Manager Score Effectiveness With Manager Score Positive Feedback
Performance Appraisal	.463*	.315*
Performance Planning	.713*	.554*
Day-To-Day Coaching	.726*	.340*
Showing How To Do	.605*	.573*
Future Responsibility	.547*	.424*
Most Typical Behavior	.497*	.310*

N=90
df=88
* $p<.05$

responsibility discussions ($r=.291$), and most typical behavior ($r=.277$). The overall relationship between effectiveness and negative feedback was considered significant for Hypothesis 11.

Table 19 presented the correlation coefficients for effectiveness scores with coaching direction ratings. All coaching activity areas produced correlations at the $p<.05$

discussions ($r=.547$), and most typical behavior ($r=.497$). Similarly, each coaching activity area produced a significant r for manager data at the $p<.05$ level. Specifically, these were performance appraisal ($r=.315$), performance planning ($r=.554$), day-to-day coaching ($r=.340$), showing how to do ($r=.573$), future responsibility discussions ($r=.424$), and most typical behavior ($r=.310$). The overall relationship between effectiveness and positive feedback was considered significant for Hypothesis 11.

Table 18 presented the correlation coefficients for effectiveness scores with negative feedback ratings. Each activity area produced a significant r at the $p<.05$ level for subordinate data. Specifically, these included performance appraisal ($r=.270$), performance planning ($r=.426$), day-to-day coaching ($r=.432$), showing how to do ($r=.296$), future responsibility discussions ($r=.419$), and most typical behavior ($r=.286$). All coaching activities produced correlations significant at the $p<.05$ level for manager data. These were performance appraisal ($r=.377$), performance planning ($r=.611$), day-to-day coaching ($r=.328$), showing how to do ($r=.487$), future responsibility discussions ($r=.291$), and most typical behavior ($r=.277$). The overall relationship between effectiveness and negative feedback was considered significant for Hypothesis 11.

Table 19 presented the correlation coefficients for effectiveness scores with coaching direction ratings. All coaching activity areas produced correlations at the $p<.05$

TABLE 18
CORRELATIONS OF COACHING EFFECTIVENESS SCORES
WITH NEGATIVE FEEDBACK SCORES

Coaching Activity	Subordinate Score Effectiveness With Subordinate Score Negative Feedback	Manager Score Effectiveness With Manager Score Negative Feedback
Performance Appraisal	.270*	.377*
Performance Planning	.426*	.611*
Day-To-Day Coaching	.432*	.328*
Showing How To Do	.296*	.487*
Future Responsibility	.419*	.291*
Most Typical Behavior	.286*	.277*

N=90
df=88
*P<.05

level for subordinate data. These included performance appraisal ($r=.304$), performance planning ($r=.657$), day-to-day coaching ($r=.677$), showing how to do ($r=.650$), future responsibility discussions ($r=.524$), and most typical behavior ($r=.348$). Similarly, all coaching activity areas except day-to-day

TABLE 19

CORRELATIONS OF COACHING EFFECTIVENESS SCORES
WITH COACHING DIRECTION SCORES

Coaching Activity	Subordinate Score Effectiveness With Subordinate Score Direction	Manager Score Effectiveness With Manager Score Direction
Performance Appraisal	.304*	.220*
Performance Planning	.657*	.625*
Day-To-Day Coaching	.677*	.107
Showing How To Do	.650*	.487*
Future Responsibility	.524*	.505*
Most Typical Behavior	.348*	.222*

N=90
df=88
*P<.05

level for subordinate data. These included performance appraisal ($r=.304$), performance planning ($r=.657$), day-to-day coaching ($r=.677$), showing how to do ($r=.650$), future responsibility discussions ($r=.524$), and most typical behavior ($r=.348$). Similarly, all coaching activity areas except day-to-day coaching produced significant correlations at the $p<.05$ level for manager data. Areas of significance included performance appraisal ($r=.220$), performance planning ($r=.625$), showing how to do ($r=.487$), future responsibility discussions ($r=.505$), and most typical behavior ($r=.222$). The overall relationship between effectiveness and coaching direction was considered significant for Hypothesis 11.

Table 20 presented the correlation coefficients for effectiveness scores with emphasis on facts or concepts ratings. All coaching activity areas produced correlations at the $p<.05$ level for subordinate data. These were performance appraisal ($r=.510$), performance planning ($r=.636$), day-to-day coaching ($r=.764$), showing how to do ($r=.775$), future responsibility discussions ($r=.499$), and most typical behavior ($r=.524$). Similarly, all coaching activity areas produced correlations at the $p<.05$ level for manager data. These included performance appraisal ($r=.302$), performance planning ($r=.632$), day-to-day coaching ($r=.333$), showing how to do ($r=.560$), future responsibility discussions ($r=.554$), and most typical behavior ($r=.385$). The overall relationship between

effectiveness and emphasis on facts or concepts was considered significant for Hypothesis 11.

Table 21 presented the correlation coefficients for

effectiveness scores with all schedule ratings. All

coaching activities at the $p < .05$ level for subordinate data. Specifically, these were

TABLE 20

**CORRELATIONS OF COACHING EFFECTIVENESS SCORES
WITH EMPHASIS ON FACTS AND CONCEPTS SCORES**

Coaching Activity	Subordinate Score Effectiveness With Subordinate Score Facts & Concepts	Manager Score Effectiveness With Manager Score Facts & Concepts
Performance Appraisal	.510*	.302*
Performance Planning	.636*	.632*
Day-To-Day Coaching	.764*	.333*
Showing How To Do	.775*	.560*
Future Responsibility	.499*	.554*
Most Typical Behavior	.524*	.385*

N=90

df=88

* $P < .05$

Table 22 presented the correlation coefficients for effectiveness scores with identification of development need ratings. All coaching activity areas produced significant correlations at the $p < .05$ level for subordinate data. These were performance appraisal ($r = .599$), performance planning ($r = .783$), day-to-day coaching ($r = .527$), showing how to do ($r = .632$), future responsibility discussions ($r = .662$), and most typical behavior ($r = .449$). Similarly, all coaching activity areas produced

effectiveness and emphasis on facts or concepts was considered significant for Hypothesis 11.

Table 21 presented the correlation coefficients for effectiveness scores with adherence to schedule ratings. All coaching activity areas produced significant correlations at the $p < .05$ level for subordinate data. Specifically, these were performance appraisal ($r = .510$), performance planning ($r = .683$), day-to-day coaching ($r = .511$), showing how to do ($r = .560$), future responsibility discussions ($r = .492$), and most typical behavior ($r = .457$). Similarly, all coaching activity areas produced significant correlations at the $p < .05$ level for manager data. The correlations included performance appraisal ($r = .477$), performance planning ($r = .621$), day-to-day coaching ($r = .339$), showing how to do ($r = .431$), future responsibility discussions ($r = .550$), and most typical behavior ($r = .406$). The overall relationship between effectiveness and adherence to schedules was considered significant for Hypothesis 11.

Table 22 presented the correlation coefficients for effectiveness scores with identification of development need ratings. All coaching activity areas produced significant correlations at the $p < .05$ level for subordinate data. These were performance appraisal ($r = .598$), performance planning ($r = .783$), day-to-day coaching ($r = .597$), showing how to do ($r = .632$), future responsibility discussions ($r = .662$), and most typical behavior ($r = .649$). Similarly, all coaching activity areas produced

TABLE 21
CORRELATIONS OF COACHING EFFECTIVENESS SCORES
WITH ADHERENCE TO SCHEDULE SCORES

Coaching Activity	Subordinate Score Effectiveness With Subordinate Score Schedules	Manager Score Effectiveness With Manager Score Schedules
Performance Appraisal	.510*	.477*
Performance Planning	.683*	.621*
Day-To-Day Coaching	.511*	.339*
Showing How To Do	.560*	.431*
Future Responsibility	.492*	.550*
Most Typical Behavior	.457*	.406*

N=90
df=88
*p<.05

significant correlations at the $p < .05$ level for manager data.

The correlations for manager data were performance appraisal

($r = .488$), performance planning ($r = .642$), day-to-day coaching

($r = .246$), showing how to do future responsibility

discussion. The

overall relationship between effectiveness and identification of

development need ratings was considered significant for

Hypothesis 11. The data for

effectiveness and scores on the six behaviors positive feedback,

negative feedback, coaching direction, emphasis on facts or

concepts, adherence to schedules, and identification of

development needs indicated a relationship as predicted. These

results met the criteria for accepting Hypothesis 11.

Hypotheses 1, 2, 4, and 6 concerning correlations of

psychological type with time in coaching, coaching behaviors,

coaching effectiveness and functional work assignments were

rejected. Hypotheses 7 and 11 concerning time and coaching

effectiveness and specific behaviors were also rejected.

TABLE 22

**CORRELATIONS OF COACHING EFFECTIVENESS SCORES
WITH DEVELOPMENT NEED IDENTIFICATION SCORES**

Coaching Activity	Subordinate Score Effectiveness With Subordinate Score Development	Manager Score Effectiveness With Manager Score Development
Performance Appraisal	.598*	.488*
Performance Planning	.783*	.642*
Day-To-Day Coaching	.597*	.246*
Showing How To Do	.632*	.566*
Future Responsibility	.662*	.489*
Most Typical Behavior	.649*	.473*

N=90

df=88

* $p < .05$

significant correlations at the $p < .05$ level for manager data. The correlations for manager data were performance appraisal ($r = .488$), performance planning ($r = .642$), day-to-day coaching ($r = .246$), showing how to do ($r = .566$), future responsibility discussions ($r = .489$), and most typical behavior ($r = .473$). The overall relationship between effectiveness and identification of development need ratings was considered significant for Hypothesis 11.

The data for correlations between perceptions of effectiveness and scores on the six behaviors positive feedback, negative feedback, coaching direction, emphasis on facts or concepts, adherence to schedules, and identification of development needs indicated a relationship as predicted. These results met the criteria for rejecting Hypothesis 11.

Summary

Hypotheses 1, 2, 4, and 6 concerning correlations of psychological type with time in coaching, coaching behaviors, coaching effectiveness and functional work assignments were rejected. Hypotheses 7 and 11 concerning time and coaching effectiveness and specific behaviors were also rejected. Hypotheses 5, 8, and 10 pertaining to coaching difficulty and time, type and effectiveness were accepted. Hypotheses 3 and 9 concerning type and congruence, and time and age were also accepted.

CHAPTER V

SUMMARY, FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

Chapter V presents the findings of the study and conclusions drawn from these findings. Recommendations are presented for further research and for action to be taken in the design of management training based upon the conclusions of this study.

Summary

The purpose of this study was to examine the relationship between the dimensions of psychological type and coaching activities, behaviors, effectiveness and difficulties in corporate middle managers. Psychological type, Carl Jung's theoretical explanation of mental processes influencing human behavior, has been related in a number of studies to specific management and teaching practices. This study examined the relationship of the specific dimensions of type, introversion-extraversion, sensation-intuition, thinking-feeling, and judgement-perception to a defined set of management coaching

activities and coaching behaviors. The coaching activities or situations studied were annual performance appraisal, periodic performance appraisal, performance planning, day-to-day coaching, showing a subordinate how to do something, and discussing future responsibilities with a subordinate. Important coaching related behaviors of the manager that were examined as they were elicited during coaching activities or situations were: providing positive feedback, providing negative feedback, providing direction in the coaching situation, emphasizing facts or concepts, adhering to schedules and identifying employee development needs. The literature review suggested both the importance of coaching to help subordinates to develop and the reluctance of many managers to adequately perform a coaching role. Since some teaching behaviors appeared to parallel the coaching behavior of managers, and since psychological type was shown to be related to the presence of those teaching behaviors, a parallel to management coaching behavior was sought. Identification of possible associations between psychological type and coaching activity and behavior was deemed important as a possible aid in designing training programs on coaching practices for managers. The population studied was a sample of ninety managers and a randomly assigned subordinate of each of those managers. All subjects worked in nationwide departments or divisions of a Fortune 500 high technology corporation.

The study was conducted in a double blind fashion so that the identity of the subjects would not be revealed. This procedure insured an environment of confidentiality to elicit manager and subordinate information about the manager's management practices, a sensitive topic. Data on psychological type was gathered via manager responses to the The Myers-Briggs Type Indicator. Information on manager coaching activities and behaviors was collected by means of the Research Survey of Coaching Activity. This survey was specifically designed for the study by the investigator to gather data on estimates of time spent in defined coaching activities, employee and manager perceptions of specific coaching behaviors and the effectiveness of those behaviors. Data on manager perceptions of the difficulty of specified coaching activities was also gathered from manager responses to the Research Survey of Coaching Activity.

Pearson product moment correlation coefficients were calculated to measure relationships between coaching activity and behaviors, and effectiveness and difficulty of those activities. The .05 level of significance was deemed an acceptable criterion. A Chi Square test was used to examine the incidence of specific dimensions of type represented in the various work functions of the subjects. T-tests were calculated to examine the coaching activity of managers based on age. A .05 level of significance was also set as a criterion for these analyses.

Findings

The findings of this study were:

1. Manager scores on the extraversion-introversion and sensation-intuition dimensions of psychological type correlated significantly with subordinate and manager estimates of the amount of time spent in coaching activity areas.
2. There was a significant relationship between the dimensions of psychological type and scores specifying patterns of specific coaching behaviors. Higher scores on extraversion and intuition were related to giving more positive feedback. Managers with a preference for judgement placed more emphasis on scheduling. Higher scores on intuition and thinking were related to more attention to the identification of development needs of subordinates.
3. A significant relationship existed between effectiveness scores of managers and subordinates, and manager scores on the extraversion-introversion, and sensation-intuition dimensions of psychological type. Higher scores on the extraversion and intuition dimensions were associated with higher scores for coaching effectiveness.
4. A relationship was found between the functional assignment of a manager and his or her psychological type profile. This relationship was evident for the extraversion-coaching activities did not correlate significantly with manager

introversion dimension of type. Managers in sales and service and human resources showed a preference for extraversion. Those in research and development, engineering, and administration preferred introversion.

5. There was a significant relationship between manager and subordinate effectiveness ratings and manager and subordinate estimates of time spent in coaching activity. Higher estimates of time spent related to higher scores on coaching effectiveness.

6. Coaching effectiveness was related to specific coaching behaviors. Both manager and subordinate data confirmed relationships between effectiveness and giving positive feedback, giving negative feedback, allowing subordinates to be involved in directing coaching discussions, providing specific facts in coaching discussions as opposed to conceptual discussions, adhering to specific schedules for action, and identifying associate development needs.

7. Several analyses in this study did not produce significant positive results. The degree of difference in manager and subordinate estimates of time spent in coaching and specific coaching behaviors did not show a relationship to psychological type. Manager's scores on difficulty with specific coaching activities were also not significantly correlated with their scores on the dimensions of psychological type. Manager and subordinate estimates of time spent in coaching activities did not correlate significantly with manager

estimates of coaching difficulty. Nor were significant relationships found for differences in the time spent in coaching activities of managers based on age. Finally, manager and subordinate scores on coaching effectiveness and manager scores on coaching difficulty were not significantly related.

Conclusions

1. The findings relating coaching effectiveness to the amount of time spent in coaching and specific coaching behaviors supported those studies that emphasized the importance of the manager's role in changing or influencing employee behavior by means of coaching activities. Spending adequate coaching time with subordinates appears to increase a manager's effectiveness at influencing the way that subordinates approach their job duties. The findings also supported those studies which indicate the importance of positive and negative feedback, allowing employee involvement in the direction of coaching activities, being specific and factual in coaching discussions, setting firm schedules to take action and, providing assistance in identifying development needs.

2. This study did not find significant relationships between coaching difficulty and time spent in coaching, or management coaching effectiveness, or a manager's psychological type. Difficulty did not seem to be a major determinant of whether or not coaching takes place as evidenced by time spent

in coaching. Difficulty, also, did not seem related to whether or not a manager does well at coaching activities as evidenced by effectiveness ratings. Managers of any particular psychological type did not seem handicapped in coaching activities because of their type.

3. Manager scores on specific dimensions of psychological type were related to the amount of time they spent in coaching, engaging in specific coaching behaviors, and coaching effectiveness. The degree to which managers engaged in specific coaching behaviors and committed time to coaching activities was also related to coaching effectiveness. In addition, Psychological type was related to amount of time spent in coaching, specific coaching behaviors and coaching effectiveness. Type may be an influence on coaching effectiveness to the degree that preferences to engage in certain coaching behaviors and to devote time to coaching is related to type. This conclusion is consistent with studies of psychological type in teaching and management. Although many of the correlations were slight they were significant and in the appropriate predicted direction. Psychological type appeared to account for some of the variance in the complex manager-subordinate interaction that occurred in coaching situations.

4. This study found the field of management coaching in a dormant state. The study took a fresh look at coaching behavior and confirmed its importance and role as a substantial area of management practice. It is hoped that the demonstrated

importance of the coaching activities and behavior described in this study will also encourage management education and development practitioners to move forward with added commitment.

The findings and conclusions of this study provide a basis for 5. The demonstrated possible link between psychological type differences and specific management behavior has important implications for the study of management and the teaching of management. It is hoped that a further study of type and management practices will be stimulated by this study. coaching effectiveness.

6. Several methodological conclusion were drawn from this study. First, the Research Survey of Coaching Activity was found to be a useful research tool and a useful mechanism to stimulate management and subordinate discussion on coaching. Second, the employment of continuous scores of the MBTI was especially useful for a field study, since they did not require the forming of groups according to all of the 16 possible type classifications. Finally, the interdisciplinary approach to studying management behavior was particularly applicable to this study. Extracting behavioral research findings from the field of education and applying them to a management situation was crucial to the success of the study. discussed activity would enhance communicating and acting on problems and opportunities addressed by coaching activities and behavior.

A number of recommendations for further research are provided here on the basis of the findings. These are listed below:

Recommendations

The findings and conclusions of this study provide a basis for the following professional recommendations:

1. Training should be provided to managers in psychological type theory and the implications of their own type for coaching practices. Awareness of type can counteract preferences to engage in behaviors which detract from coaching effectiveness. It would be beneficial to study the relationship of managers and subordinates on the basis of type.

2. Managers should also be trained regarding the importance of specific coaching behaviors and the importance of spending time in the various coaching activities defined as a means of enhancing their effectiveness in assisting their subordinates. The relationship between manager and subordinate coaching interaction.

3. Emphasis should be placed on training managers to be more explicit and expressive in their coaching interactions with subordinates. Many managers reported that they felt their coaching practices were effective and that they were spending adequate time in coaching activities. The subordinates of these managers did not always share the same perception. Making coaching a more planned, shared and discussed activity would enhance communicating and acting on problems and opportunities addressed by coaching activities and behavior. The relationship between manager and subordinate coaching interaction.

The different types in learning specific material is a question of considerable significance.

A number of recommendations for further research are provided here on the basis of study findings. These are listed below:

1. This study should be replicated in work environments different from a high technology corporate environment. It would be particularly interesting to conduct a similar study in a hospital or other human service environment, since such an environment would most likely be staffed by a high percentage of feeling oriented supervisors and employees.

2. It would be beneficial to study the relationship of managers and employees who are the same and those who differ on the dimensions of psychological type. Of particular importance would be a determination of whether similarity or differences on the dimensions of type might influence the success of the manager-subordinate coaching interaction.

3. This study was conducted in a manager to professional subordinate situation. It should be replicated in a manager to manager coaching situation, in order to learn more about the time spent and the specific behaviors linked to effectiveness in working with a wholly management population.

4. It would be important to determine how psychological type influences the learning preferences of managers and employees in coaching situations. How particular presentation techniques or learning activities assist or hinder the different types in learning specific material is a question of considerable significance.

MYERS-BRIGGS TYPE INDICATOR

by Katharine C. Briggs and Isabel Briggs Myers

DIRECTIONS

There are no "right" or "wrong" answers to these questions. Your answers will help show how you like to look at things and how you like to go about deciding things.

APPENDIX A

THE MYERS-BRIGGS TYPE INDICATOR

Find out where your special strengths are, what kinds of work you might enjoy and be successful doing, and how people with different preferences can relate to each other and be valuable to society.

Read each question carefully and mark your answer on the separate answer sheet. Make no marks on the question booklet. Do not think too long about any question. If you cannot decide on a question, skip it but be careful that the next space you mark on the answer sheet has the same number as the question you are then answering.

Read the directions on your answer sheet, fill in your name and any other facts asked for, and work through until you have answered all the questions.



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123456789101112

MYERS-BRIGGS TYPE INDICATOR

FORM I

by Katharine C. Briggs and Isabel Briggs Myers

DIRECTIONS:

There are no "right" or "wrong" answers to these questions. Your answers will help show how you like to look at things and how you like to go about deciding things. Knowing your own preferences and learning about other people's can help you understand where your special strengths are, what kinds of work you might enjoy and be successful doing, and how people with different preferences can relate to each other and be valuable to society.

Read each question carefully and mark your answer on the separate answer sheet. *Make no marks on the question booklet.* Do not think too long about any question. If you cannot decide on a question, skip it but be careful that the *next* space you mark on the answer sheet has the same number as the question you are then answering.

Read the directions on your answer sheet, fill in your name and any other facts asked for, and work through until you have answered all the questions.



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TWELFTH PRINTING, 1986

18. In any of the ordinary emergencies of everyday life, do you prefer to
 - (A) take orders and be helpful, or
 - (B) give orders and be responsible?
19. At parties, do you
 - (A) sometimes get bored, or
 - (B) always have fun?
20. Is it harder for you to adapt to
 - (A) routine, or
 - (B) constant change?
21. Would you be more willing to take on a heavy load of extra work for the sake of
 - (A) extra comforts and luxuries, or
 - (B) a chance to achieve something important?
22. Are the things you plan or undertake
 - (A) almost always things you can finish, or
 - (B) often things that prove too difficult to carry through?
23. Are you more attracted to
 - (A) a person with a quick and brilliant mind, or
 - (B) a practical person with a lot of common sense?
24. Do you find people in general
 - (A) slow to appreciate and accept ideas not their own, or
 - (B) reasonably open-minded?
25. When you have to meet strangers, do you find it
 - (A) pleasant, or at least easy, or
 - (B) something that takes a good deal of effort?
26. Are you inclined to
 - (A) value sentiment more than logic, or
 - (B) value logic more than sentiment?
27. Do you prefer to
 - (A) arrange dates, parties, etc. well in advance, or
 - (B) be free to do whatever looks like fun when the time comes?
28. In making plans which concern other people, do you prefer to
 - (A) take them into your confidence, or
 - (B) keep them in the dark until the last possible moment?
29. Is it a higher compliment to be called
 - (A) a person of real feeling, or
 - (B) a consistently reasonable person?
30. When you have a decision to make, do you usually
 - (A) make it right away, or
 - (B) wait as long as you reasonably can before deciding?
31. When you run into an unexpected difficulty in something you are doing, do you feel it to be
 - (A) a piece of bad luck, or
 - (B) a nuisance, or
 - (C) all in the day's work?
32. Do you almost always
 - (A) enjoy the present moment and make the most of it, or
 - (B) feel that something just ahead is more important?
33. Are you
 - (A) easy to get to know, or
 - (B) hard to get to know?
34. With most of the people you know, do you
 - (A) feel that they mean what they say, or
 - (B) feel you must watch for a hidden meaning?
35. When you start a big project that is due in a week, do you
 - (A) take time to list the separate things to be done and the order of doing them, or
 - (B) plunge in?
36. In solving a personal problem, do you
 - (A) feel more confident about it if you have asked other people's advice, or
 - (B) feel that nobody else is in as good a position to judge as you are?
37. Do you admire more the people who are
 - (A) conventional enough never to make themselves conspicuous, or
 - (B) too original and individual to care whether they are conspicuous or not?
38. Which mistake would be more natural for you:
 - (A) to drift from one thing to another all your life, or
 - (B) to stay in a rut that didn't suit you?

Go on to the next page.

39. When you run across people who are mistaken in their beliefs, do you feel that
 - (A) it is your duty to set them right, or
 - (B) it is their privilege to be wrong?
40. When an attractive chance for leadership comes to you, do you
 - (A) accept it if it is something you can really swing, or
 - (B) sometimes let it slip because you are too modest about your own abilities, or
 - (C) or doesn't leadership ever attract you?
41. Among your friends, are you
 - (A) one of the last to hear what is going on, or
 - (B) full of news about everybody?
42. Are you at your best
 - (A) when dealing with the unexpected, or
 - (B) when following a carefully worked-out plan?
43. Does the importance of doing well on a test make it generally
 - (A) easier for you to concentrate and do your best, or
 - (B) harder for you to concentrate and do yourself justice?
44. In your free hours, do you
 - (A) very much enjoy stopping somewhere for refreshments, or
 - (B) usually want to use the time and money another way?
45. At the time in your life when things piled up on you the worst, did you find
 - (A) that you had gotten into an impossible situation, or
 - (B) that by doing only the necessary things you could work your way out?
46. Do most of the people you know
 - (A) take their fair share of praise and blame, or
 - (B) grab all the credit they can but shift any blame on to someone else?
47. When you are in an embarrassing spot, do you usually
 - (A) change the subject, or
 - (B) turn it into a joke, or
 - (C) days later, think of what you should have said?
48. Are such emotional "ups and downs" as you may feel
 - (A) very marked, or
 - (B) rather moderate?
49. Do you think that having a daily routine is
 - (A) a comfortable way to get things done, or
 - (B) painful even when necessary?
50. Are you usually
 - (A) a "good mixer", or
 - (B) rather quiet and reserved?
51. In your early childhood (at six or eight), did you
 - (A) feel your parents were very wise people who should be obeyed, or
 - (B) find their authority irksome and escape it when possible?
52. When you have a suggestion that ought to be made at a meeting, do you
 - (A) stand up and make it as a matter of course, or
 - (B) hesitate to do so?
53. Do you get more annoyed at
 - (A) fancy theories, or
 - (B) people who don't like theories?
54. When you are helping in a group undertaking, are you more often struck by
 - (A) the cooperation, or
 - (B) the inefficiency, or
 - (C) or don't you get involved in group undertakings?
55. When you go somewhere for the day, would you rather
 - (A) plan what you will do and when, or
 - (B) just go?
56. Are the things you worry about
 - (A) often really not worth it, or
 - (B) always more or less serious?
57. In deciding something important, do you
 - (A) find you can trust your feeling about what is best to do, or
 - (B) think you should do the logical thing, no matter how you feel about it?

58. Do you tend to have
(A) deep friendships with a very few people, or
(B) broad friendships with many different people?
59. Do you think your friends
(A) feel you are open to suggestions, or
(B) know better than to try to talk you out of anything you've decided to do?
60. Does the idea of making a list of what you should get done over a week-end
(A) appeal to you, or
(B) leave you cold, or
(C) positively depress you?
61. In traveling, would you rather go
(A) with a companion who had made the trip before and "knew the ropes", or
(B) alone or with someone greener at it than yourself?
62. Would you rather have
(A) an opportunity that may lead to bigger things, or
(B) an experience that you are sure to enjoy?
63. Among your personal beliefs, are there
(A) some things that cannot be proved, or
(B) only things that *can* be proved?
64. Would you rather
(A) support the established methods of doing good, or
(B) analyze what is still wrong and attack unsolved problems?
65. Has it been your experience that you
(A) often fall in love with a notion or project that turns out to be a disappointment—so that you "go up like a rocket and come down like the stick", or do you
(B) use enough judgment on your enthusiasms so that they do not let you down?

66. Do you think you get
(A) more enthusiastic about things than the average person, or
(B) less enthusiastic about things than the average person?
67. If you divided all the people you know into those you like, those you dislike, and those toward whom you feel indifferent, would there be more of
(A) those you like, or
(B) those you dislike?
- [On this next question *only*, if two answers are true, mark both.]
68. In your daily work, do you
(A) rather enjoy an emergency that makes you work against time, or
(B) hate to work under pressure, or
(C) usually plan your work so you won't *need* to work under pressure?
69. Are you more likely to speak up in
(A) praise, or
(B) blame?
70. Is it higher praise to say someone has
(A) vision, or
(B) common sense?
71. When playing cards, do you enjoy *most*
(A) the sociability,
(B) the excitement of winning,
(C) the problem of getting the *most* out of each hand,
(D) the risk of playing for stakes,
(E) or don't you enjoy playing cards?

Go on to the next page.

Which word in each pair appeals to you more?

Think what the words mean, not how they look or how they sound.

72. (A) firm-minded warm-hearted (B)
73. (A) imaginative matter-of-fact (B)
74. (A) systematic spontaneous (B)
75. (A) congenial effective (B)
76. (A) theory certainty (B)
77. (A) party theater (B)
78. (A) build invent (B)
79. (A) analyze sympathize (B)
80. (A) popular intimate (B)
81. (A) benefits blessings (B)
82. (A) casual correct (B)
83. (A) active intellectual (B)
84. (A) uncritical critical (B)
85. (A) scheduled unplanned (B)
86. (A) convincing touching (B)
87. (A) reserved talkative (B)
88. (A) statement concept (B)
89. (A) soft hard (B)
90. (A) production design (B)
91. (A) forgive tolerate (B)
92. (A) hearty quiet (B)
93. (A) who what (B)
94. (A) impulse decision (B)
95. (A) speak write (B)
96. (A) affection tenderness (B)
97. (A) punctual leisurely (B)

98. (A) sensible fascinating (B)
99. (A) changing permanent (B)
100. (A) determined devoted (B)
101. (A) system zest (B)
102. (A) facts ideas (B)
103. (A) compassion foresight (B)
104. (A) concrete abstract (B)
105. (A) justice mercy (B)
106. (A) calm lively (B)
107. (A) make create (B)
108. (A) wary trustful (B)
109. (A) orderly easy-going (B)
110. (A) approve question (B)
111. (A) gentle firm (B)
112. (A) foundation spire (B)
113. (A) quick careful (B)
114. (A) thinking feeling (B)
115. (A) theory experience (B)
116. (A) sociable detached (B)
117. (A) sign symbol (B)
118. (A) systematic casual (B)
119. (A) literal figurative (B)
120. (A) peacemaker judge (B)
121. (A) accept change (B)
122. (A) agree discuss (B)
123. (A) executive scholar (B)

Which answer comes closest to telling how you usually feel or act?

124. Do you find the more routine parts of your day
(A) restful, or
(B) boring?
125. If you think you are not getting a square deal in a club or team to which you belong, is it better to
(A) shut up and take it, or
(B) use the threat of resigning if necessary to get your rights?
126. Can you
(A) talk easily to almost anyone for as long as you have to, or
(B) find a lot to say only to certain people or under certain conditions?
127. When strangers notice you, does it
(A) make you uncomfortable, or
(B) not bother you at all?
128. If you were a teacher, would you rather teach
(A) fact courses, or
(B) courses involving theory?
129. When something starts to be the fashion, are you usually
(A) one of the first to try it, or
(B) not much interested?
130. In solving a difficult personal problem, do you
(A) tend to do more worrying than is useful in reaching a decision, or
(B) feel no more anxiety than the situation requires?
131. If people seem to slight you, do you
(A) tell yourself they didn't mean anything by it, or
(B) distrust their good will and stay on guard with them thereafter?
132. When you have a special job to do, do you like to
(A) organize it carefully before you start, or
(B) find out what is necessary as you go along?
133. Do you feel it is a worse fault
(A) to show too much warmth, or
(B) not to have warmth enough?
134. When you are at a party, do you like to
(A) help get things going, or
(B) let the others have fun in their own way?
135. When a new opportunity comes up, do you
(A) decide about it fairly quickly, or
(B) sometimes miss out through taking too long to make up your mind?
136. In managing your life, do you tend to
(A) undertake too much and get into a tight spot, or
(B) hold yourself down to what you can comfortably handle?
137. When you find yourself definitely in the wrong, would you rather
(A) admit you are wrong, or
(B) not admit it, though everyone knows it,
(C) or don't you ever find yourself in the wrong?
138. Can the new people you meet tell what you are interested in
(A) right away, or
(B) only after they really get to know you?
139. In your home life, when you come to the end of some undertaking, are you
(A) clear as to what comes next and ready to tackle it, or
(B) glad to relax until the next inspiration hits you?
140. Do you think it more important to
(A) be able to see the possibilities in a situation, or
(B) be able to adjust to the facts as they are?
141. Do you feel that the people whom you know personally owe their successes more to
(A) ability and hard work, or
(B) luck, or
(C) bluff, pull and shoving themselves ahead of others?
142. In getting a job done, do you depend upon
(A) starting early, so as to finish with time to spare, or
(B) the extra speed you develop at the last minute?
143. After associating with superstitious people, have you
(A) found yourself slightly affected by their superstitions, or
(B) remained entirely unaffected?

Go on to the next page.

144. When you don't agree with what has just been said, do you usually
(A) let it go, or
(B) put up an argument?
145. Would you rather be considered
(A) a practical person, or
(B) an ingenious person?
146. Out of all the good resolutions you may have made, are there
(A) some you have kept to this day, or
(B) none that have really lasted?
147. Would you rather work under someone who is
(A) always kind, or
(B) always fair?
148. In a large group, do you more often
(A) introduce others, or
(B) get introduced?
149. Would you rather have as a friend someone who
(A) is always coming up with new ideas, or
(B) has both feet on the ground?
150. When you have to do business with strangers, do you feel
(A) confident and at ease, or
(B) a little fussed or afraid that they won't want to bother with you?
151. When it is settled well in advance that you will do a certain thing at a certain time, do you find it
(A) nice to be able to plan accordingly, or
(B) a little unpleasant to be tied down?
152. Do you feel that sarcasm
(A) should never be used where it can hurt people's feelings, or
(B) is too effective a form of speech to be discarded for such a reason?
153. When you think of some little thing you should do or buy, do you
(A) often forget it till much later, or
(B) usually get it down on paper to remind yourself, or
(C) always carry through on it without reminders?
154. Do you more often let
(A) your heart rule your head, or
(B) your head rule your heart?
155. In listening to a new idea, are you more anxious to
(A) find out all about it, or
(B) judge whether it is right or wrong?
156. Are you oppressed by
(A) many different worries, or
(B) comparatively few?
157. When you don't approve of the way a friend is acting, do you
(A) wait and see what happens, or
(B) do or say something about it?
158. Do you feel it is a worse fault to be
(A) unsympathetic, or
(B) unreasonable?
159. When a new situation comes up which conflicts with your plans, do you try first to
(A) change your plans to fit the situation, or
(B) change the situation to fit your plans?
160. Do you think the people close to you know how you feel
(A) about most things, or
(B) only when you have had some special reason to tell them?
161. When you have a serious choice to make, do you
(A) almost always come to a clear-cut decision, or
(B) sometimes find it so hard to decide that you do not wholeheartedly follow up either choice?
162. On most matters, do you
(A) have a pretty definite opinion, or
(B) like to keep an open mind?
163. As you get to know people better, do you more often find that they
(A) let you down or disappoint you in some way, or
(B) improve upon acquaintance?
164. When the truth would not be polite, are you more likely to tell
(A) a polite lie, or
(B) the impolite truth?
165. In your way of living, do you prefer to be
(A) original, or
(B) conventional?
166. Would you have liked to argue the meaning of
(A) a lot of these questions, or
(B) only a few?

MYERS-BRIGGS TYPE INDICATOR™ (FORM F) ANSWER SHEET

PURPOSE OF THE INDICATOR: This is a set of questions for finding out what type of person you are. The questions are not important in themselves, but the answers point to certain likes and dislikes that are important.

These likes and dislikes are important because they make people different in a lot of useful and valuable ways - interested in different things and good at different things, and likely to enjoy and succeed in different kinds of jobs.

It is easier to live and work and get along with people if you know about these differences and how valuable they can be.

HOW TO TAKE THE INDICATOR: Read one question at a time, with both (or all) its answers, and choose your answer quickly without stopping to study it. Your first reaction is most likely to be the way you naturally feel or act, which is what is wanted. Don't try to be consistent. And if you find a question where both answers seem equally true and you cannot choose, don't mark both or flip a coin for it. Skip that question and go on.

FACTS TO FILL IN: Before starting to answer questions, fill in, on the other side of this sheet:

1. **Name:** At top left you will find directions for completing this section.
2. **Date of Birth:** Using the numbers 01 to 12 (Jan. = 01, Feb. = 02, etc.) print the number that stands for the month of your birth in the two boxes below the word MONTH. In the next two boxes print the day of the month you were born. Finally, in the two remaining boxes print the last two numbers of the year you were born. For example, March 8, 1945, would be printed.

MO	DAY	YR
03	08	45

Below each box, blacken the circle that is numbered the same as the number in the box.

3. **Today's Date:** Use the same system to give today's date.
4. **Years of Education Completed:** Blacken the numbered circle beside the highest grade you have completed in school.
5. **Are You Still in School?** Blacken (Y) for "Yes" and (N) for "No".
6. **Sex:** Women and girls blacken (F). Men and boys blacken (M).
7. Look to see if you have filled in all six of the above facts.

HOW TO MARK YOUR ANSWERS: To mark your answers on the other side of this answer sheet, find the number of the question, then find the circle next to it that has the same letter as the answer you chose and blacken that circle completely. Use No. 2 lead pencil; do not use pen.

SAMPLE QUESTION:

167. Would you rather see a movie
(A) at home on TV
(B) at a movie theater

SAMPLE ANSWER SHEET:

A B
167 (A) (B)

In the sample question above, if you would rather see the movie at home on TV, you would blacken the circle marked "A". If you would rather see the movie at a movie theater, you would blacken the circle marked "B".

Be sure that your marks are black and completely fill the circle. If you make a mistake, erase it; don't cross it out.



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577 College Avenue, Palo Alto, CA 94306

**MARK ONLY IN RESPONSE BOXES OR CIRCLES.
MARKS MUST COMPLETELY FILL THE CIRCLE.**

TO MARK YOUR ANSWERS TO THE TYPE INDICATOR QUESTIONS, FIND THE NUMBER OF THE QUESTION BELOW AND BLACKEN THE CIRCLE THAT HAS THE SAME LETTER AS THE ANSWER YOU CHOSE. ERASE COMPLETELY ANY STRAY MARKS OR CHANGED ANSWERS.

A B C	A B C D E	A B	A B C
-------	-----------	-----	-------

A B C	A B C D E	A B	A B C
1 (A) (E)	46 (A) (B)	91 (A) (B)	136 (A) (E)
2 (A) (B)	47 (A) (B) (C)	92 (A) (B)	137 (A) (B) (C)
3 (A) (B)	48 (A) (B)	93 (A) (B)	138 (A) (E)
4 (A) (B)	49 (A) (B)	94 (A) (B)	139 (A) (E)
5 (A) (B)	50 (A) (E)	95 (A) (E)	140 (A) (E)
6 (A) (B)	51 (A) (B)	96 (A) (B)	141 (A) (E) (C)
7 (A) (E)	52 (A) (E)	97 (A) (E)	142 (A) (B)
8 (A) (E)	53 (A) (E)	98 (A) (B)	143 (A) (E)
9 (A) (B) (C)	54 (A) (B) (C)	99 (A) (B)	144 (A) (B)
10 (A) (B)	55 (A) (E)	100 (A) (B)	145 (A) (E)
11 (A) (B)	56 (A) (B)	101 (A) (B)	146 (A) (E)
12 (A) (B)	57 (A) (B)	102 (A) (E)	147 (A) (B)
13 (A) (E)	58 (A) (B)	103 (A) (E)	148 (A) (B)
14 (A) (B) (C)	59 (A) (B)	104 (A) (B)	149 (A) (E)
15 (A) (B)	60 (A) (B) (C)	105 (A) (B)	150 (A) (B)
16 (A) (B)	61 (A) (B)	106 (A) (B)	151 (A) (B)
17 (A) (B)	62 (A) (B)	107 (A) (B)	152 (A) (B)
18 (A) (B)	63 (A) (B)	108 (A) (B)	153 (A) (B) (C)
19 (A) (B)	64 (A) (B)	109 (A) (B)	154 (A) (B)
20 (A) (B)	65 (A) (B)	110 (A) (B)	155 (A) (B)
21 (A) (B)	66 (A) (E)	111 (A) (B)	156 (A) (B)
22 (A) (B)	67 (A) (B)	112 (A) (B)	157 (A) (B)
23 (A) (E)	68 (A) (B) (C)	113 (A) (E)	158 (A) (E)
24 (A) (E)	69 (A) (B)	114 (A) (B)	159 (A) (E)
25 (A) (B)	70 (A) (B)	115 (A) (B)	160 (A) (B)

26 (A) (E)	71 (A) (B) (C) (D) (E)	116 (A) (B)	161 (A) (E)
27 (A) (B)	72 (A) (B)	117 (A) (B)	162 (A) (B)
28 (A) (B)	73 (A) (B)	118 (A) (B)	163 (A) (B)
29 (A) (B)	74 (A) (B)	119 (A) (B)	164 (A) (B)
30 (A) (B)	75 (A) (B)	120 (A) (B)	165 (A) (B)
31 (A) (E) (C)	76 (A) (B)	121 (A) (B)	166 (A) (B)
32 (A) (B)	77 (A) (B)	122 (A) (B)	
33 (A) (B)	78 (A) (B)	123 (A) (B)	
34 (A) (B)	79 (A) (B)	124 (A) (B)	
35 (A) (B)	80 (A) (B)	125 (A) (B)	
36 (A) (B)	81 (A) (B)	126 (A) (B)	
37 (A) (B)	82 (A) (B)	127 (A) (B)	
38 (A) (B)	83 (A) (B)	128 (A) (B)	
39 (A) (B)	84 (A) (B)	129 (A) (B)	
40 (A) (B) (C)	85 (A) (B)	130 (A) (B)	
41 (A) (B)	86 (A) (B)	131 (A) (B)	
42 (A) (B)	87 (A) (B)	132 (A) (B)	
43 (A) (B)	88 (A) (B)	133 (A) (B)	
44 (A) (B)	89 (A) (B)	134 (A) (B)	
45 (A) (B)	90 (A) (B)	135 (A) (E)	

TYPE

1	2	3	4	5

MYERS
BRIGGS
TYPE
INDICATOR
FORM
ANSWER
SHEET

POINTS		SCORES	
E	_____	I	_____
S	_____	N	_____
T	_____	F	_____
J	_____	P	_____
TYPE			

**MYERS-
BRIGGS
TYPE
INDICATOR™
FORM F
ANSWER
SHEET**

A ASSOCIATE

RESEARCH SURVEY OF COACHING ACTIVITY

INSTRUCTIONS:

This survey asks questions about the Coaching Activity of your manager during the past year. Coaching Activity includes a number of areas which are defined on the following page.

You will be asked to estimate how much time you spent on some of these activities and a number of questions about how the activities were conducted.

APPENDIX B

Your answers to the first question are used by the agency to estimate the frequency of coaching activity for each part of the first question. Please try to be as accurate as your memory, appointment calendar, or records permit. Take time to reconstruct in your memory what actually happened before you respond.

In questions 2 through 8 you are only required to circle one number as a response to each part of the question. The number choices are linked to specific descriptive statements in the KEY for each question in the survey. Choose the alternative which is closest to what actually happened in each of the coaching areas listed.

Please be sure to answer all questions and return the survey within 72 hours or three working days.

Thank you for your response.

A ASSOCIATE

RESEARCH SURVEY OF COACHING ACTIVITY

INSTRUCTIONS:

This survey asks questions about the Coaching Activity of your manager during the past year. Coaching Activity includes a number of areas which are defined on the following page.

You will be asked to estimate how much time you spent on some of these activities and a number of questions about how the activities were conducted.

Your answers will require simple time and frequency estimates for each part of the first question. Please try to be as accurate as your memory, appointment calendar, or records permit. Take time to reconstruct in your memory what actually happened before you respond.

In questions 2 through 8 you are only required to circle one number as a response to each part of the question. The number choices are linked to specific descriptive statements in the KEY for each question in the survey. Choose the alternative which is closest to what actually happened in each of the coaching areas listed.

Please be sure to answer all questions and return the survey within 72 hours or three working days.

Thank you for your response.

DEFINITION OF COACHING AREAS

PERFORMANCE APPRAISAL:

A. Annual Performance Appraisal Discussion - A formal meeting or meetings in which annual performance is reviewed against goals and standards. Formal Performance Review forms are completed and discussed.

B. Periodic Performance Appraisal Discussions - One or more discussions which summarize and discuss your progress toward goals. They are interim performance discussions held in the time between formal Performance Appraisal Discussions. A record of these discussions may or may not be kept.

PERFORMANCE PLANNING DISCUSSION:

A discussion where goals and standards are established, explained or modified. It is not a departmental business planning meeting but a session in which your specific performance goals are set and discussed using a formal planning document or a more informal process.

DAY-TO-DAY COACHING DISCUSSION:

Usually unplanned, unscheduled, informal comments or discussions about how you are performing, progressing, doing something right or wrong, or interacting with others successfully or unsuccessfully. It is not just giving assignments or information about work. It is not an audit of status of results except in those cases where it specifically addresses your performance.

SHOWING HOW-TO-DO DISCUSSIONS:

Discussions in which your manager teaches you how to do a task, solve a problem, overcome an obstacle, develop a skill or gain information from the manager's experience which is applicable to a current problem. It is not just giving orders or directions.

FUTURE RESPONSIBILITY DISCUSSIONS:

Discussions of your interests in working on other projects or assignments within your current job or future new position assignments. These discussions are not meetings where delegated assignments are just given to you. The important factor is finding out your interests, needs or motivation to advance or work in other areas

F. FUTURE RESPONSIBILITY DISCUSSIONS:

We spent _____ (how many) short intervals of _____ (min.) each.

and/or

We spent _____ (how many) long intervals of _____ (min.) _____ (hrs.) each.

1. For each of the coaching areas listed below please indicate how much time was spent by you and your manager. Short intervals are 30 minutes or less, long intervals are more than 30 minutes. If you met once-a-week you would indicate 50 or so intervals, once a month would be 12 intervals etc. Please insert "0"s if there was no activity.

A. ANNUAL PERFORMANCE APPRAISAL DISCUSSION:

We spent____(how many) short intervals of ____ (min.) each.
and/or

We spent____(how many) long intervals of ____ (min.) ____ (hrs.) each.

B. PERIODIC PERFORMANCE APPRAISAL DISCUSSION:

We spent____(how many) short intervals of ____ (min.) each.
and/or

We spent____(how many) long intervals of ____ (min.) ____ (hrs.) each.

C. PERFORMANCE PLANNING DISCUSSIONS:

We spent____(how many) short intervals of ____ (min.) each.
and/or

We spent____(how many) long intervals of ____ (min.) ____ (hrs.) each.

D. DAY-TO-DAY COACHING DISCUSSIONS:

We spent____(how many) short intervals of ____ (min.) each.
and/or

We spent____(how many) long intervals of ____ (min.) ____ (hrs.) each.

E. SHOWING HOW-TO-DO DISCUSSIONS:

We spent____(how many) short intervals of ____ (min.) each.
and/or

We spent____(how many) long intervals of ____ (min.) ____ (hrs.) each.

F. FUTURE RESPONSIBILITY DISCUSSIONS:

We spent____(how many) short intervals of ____ (min.) each.
and/or

We spent____(how many) long intervals of ____ (min.) ____ (hrs.) each.

If all of the above ratings are not the same which rating is most typical of manager's behavior? 0 1 2 3 4 5

2. For the coaching areas listed below use the following key to describe your manager's use of positive feedback. Positive feedback is a statement of approval of some aspect of your performance, behavior or results.

- 0 - We did not have a discussion in this area.
- 1 - No statements of approval were made.
- 2 - Approval was mentioned; few or no details; a reaction was not sought from me.
- 3 - Approval was mentioned; few or no details; a reaction was sought from me.
- 4 - Approval was clearly stated with details; a reaction was sought; there was no discussion of the details.
- 5 - Approval was clearly stated with details; a reaction was sought; there was a discussion of the details.

POSITIVE FEEDBACK -- CIRCLE ONE NUMBER FOR EACH AREA LISTED

A. PERFORMANCE APPRAISAL	0	1	2	3	4	5
B. PERFORMANCE PLANNING	0	1	2	3	4	5
C. DAY-TO-DAY COACHING	0	1	2	3	4	5
D. SHOWING HOW-TO-DO	0	1	2	3	4	5
E. FUTURE RESPONSIBILITIES	0	1	2	3	4	5

If all of the above ratings are not the same which rating is most typical of manager's behavior? 0 1 2 3 4 5

3. For the coaching areas listed below use the following key to describe your manager's use of negative feedback. Negative feedback is a statement of concern that some aspect of your performance, behavior, or results is not up to some expectation or standard.

- 0 - We did not have a discussion in this area.
- 1 - No concerns were mentioned.
- 2 - Concern was mentioned; few or no details; a reaction or reply was not sought.
- 3 - Concern was mentioned; few or no details; a reaction or reply was sought.
- 4 - Concern was clearly stated with detail; a reaction or reply was sought; there was no further discussion.
- 5 - Concern was clearly stated with detail; a reaction or reply was sought; there was a follow up discussion.

NEGATIVE FEEDBACK -- CIRCLE ONE NUMBER FOR EACH AREA LISTED

A. PERFORMANCE APPRAISAL	0	1	2	3	4	5
B. PERFORMANCE PLANNING	0	1	2	3	4	5
C. DAY-TO-DAY COACHING	0	1	2	3	4	5
D. SHOWING HOW-TO-DO	0	1	2	3	4	5
E. FUTURE RESPONSIBILITIES	0	1	2	3	4	5

If all of the above ratings are not the same which rating is most typical of manager's behavior? 0 1 2 3 4 5

4. For the coaching areas listed below use the following key to describe what typically happened in discussions with your manager.

- 0 - We did not have a discussion in this area.
- 1 - My manager made all the inputs and set the direction.
- 2 - We shared inputs but my manager directed the discussion.
- 3 - We shared inputs and shared directing the discussion.
- 4 - We shared inputs but I made important decisions in directing the discussion.
- 5 - I made major inputs and important decisions in directing the discussion.

COACHING DIRECTION - CIRCLE ONE NUMBER FOR EACH AREA LISTED

A. PERFORMANCE APPRAISAL	0	1	2	3	4	5
B. PERFORMANCE PLANNING	0	1	2	3	4	5
C. DAY-TO-DAY COACHING	0	1	2	3	4	5
D. SHOWING HOW-TO-DO	0	1	2	3	4	5
E. FUTURE RESPONSIBILITIES	0	1	2	3	4	5

If all of the above ratings are not the same which rating is most typical of these discussions? 0 1 2 3 4 5

5. For the coaching areas listed below, use the following key to describe the emphasis your manager placed on specific facts and details or concepts and broad general ideas.

- 0 - We did not have a discussion in this area.
- 1 - Very little specific information was discussed or written. Almost all interaction was at the concept or general level.
- 2 - There were some specifics; most was at the concept level.
- 3 - There was an equal amount of concept and specific information written and or discussed.
- 4 - There was a heavy emphasis on data and detail with some concepts to hold it together.
- 5 - There was much detail and specific information discussed, written or required; little was left at the concept level.

FACTS AND CONCEPTS - CIRCLE ONE NUMBER FOR EACH AREA LISTED

A. PERFORMANCE APPRAISAL	0	1	2	3	4	5
B. PERFORMANCE PLANNING	0	1	2	3	4	5
C. DAY-TO-DAY COACHING	0	1	2	3	4	5
D. SHOWING HOW-TO-DO	0	1	2	3	4	5
E. FUTURE RESPONSIBILITIES	0	1	2	3	4	5

If all of the above ratings are not the same which rating is most typical of manager's behavior? 0 1 2 3 4 5

6. For the coaching areas listed below use the following key to describe your manager's adherence to schedules to either set up discussions or to implement decisions or action resulting from coaching discussions.

- 0 - We did not have a discussion in this area.
- 1 - Schedules were frequently not set.
- 2 - Schedules were loosely set; wide latitude or deviation was possible.
- 3 - Schedules were set within a range; there was flexibility to change.
- 4 - Schedules were quite specific; there was latitude to change.
- 5 - Schedules were very specific; there was little latitude to change.

SCHEDULES ----- CIRCLE ONE NUMBER FOR EACH AREA LISTED						
A. PERFORMANCE APPRAISAL	0	1	2	3	4	5
B. PERFORMANCE PLANNING	0	1	2	3	4	5
C. DAY-TO-DAY COACHING	0	1	2	3	4	5
D. SHOWING HOW-TO-DO	0	1	2	3	4	5
E. FUTURE RESPONSIBILITIES	0	1	2	3	4	5

If all of the above ratings are not the same which rating is most typical of manager's behavior? 0 1 2 3 4 5

7. Use the following key to describe how your manager's coaching activities in the areas listed below changed or helped your learning, performance or behavior.

- 0 - We did not have a discussion in this area.
- 1 - There were no noticeable effects due to these discussions.
- 2 - There has been little effect on the way I do things.
- 3 - There has been some effect on the way I do or approach things as a result of these discussions.
- 4 - There has been at least one important effect on my behavior as the result of these discussions.
- 5 - There have been one or more very important effects on my behavior or approach to the way I do things as a result of these discussions.

EFFECTS ----- CIRCLE ONE NUMBER FOR EACH AREA LISTED						
A. PERFORMANCE APPRAISAL	0	1	2	3	4	5
B. PERFORMANCE PLANNING	0	1	2	3	4	5
C. DAY-TO-DAY COACHING	0	1	2	3	4	5
D. SHOWING HOW-TO-DO	0	1	2	3	4	5
E. FUTURE RESPONSIBILITIES	0	1	2	3	4	5

If all of the above ratings are not the same which rating is most typical of effect of coaching? 0 1 2 3 4 5

8. For the coaching areas listed below use the following key to describe the type of discussion you and your manager had about your development needs. Development needs are areas of your skill or knowledge which could be improved to enhance chances of current or future success.

- 0 - We did not have a discussion in this area.
- 1 - No development needs were discussed.
- 2 - My development needs were mentioned briefly; no action plan was formulated to meet needs.
- 3 - We discussed one or more specific development needs; no specific action was planned.
- 4 - We discussed one or more specific development needs; we have a plan of action to help me improve.
- 5 - There was a discussion of important development needs that are critical to my current or future success; we are committed to a plan of action to improve.

DEVELOPMENT ----- CIRCLE ONE NUMBER FOR EACH AREA LISTED

A. PERFORMANCE APPRAISAL	0	1	2	3	4	5
B. PERFORMANCE PLANNING	0	1	2	3	4	5
C. DAY-TO-DAY COACHING	0	1	2	3	4	5
D. SHOWING HOW-TO-DO	0	1	2	3	4	5
E. FUTURE RESPONSIBILITIES	0	1	2	3	4	5

If all of the above ratings are not the same which rating is most typical of development needs? 0 1 2 3 4 5

Thank you for your response

(4) U.S. Train 1944

B MANAGER

RESEARCH SURVEY OF COACHING ACTIVITY

INSTRUCTIONS:

This survey asks questions about your Coaching Activities. Coaching Activity includes a number of areas which are defined on the following page.

You will be asked to estimate how much time you spent on some of these activities and a number of questions about how the activities were conducted. All questions will refer to your interaction with one designated employee during the past year. Please answer according to your activity with this employee only.

Your answers will require simple time and frequency estimates for all parts of the first question. Please try to be as accurate as your memory, appointment calendar, or records permit. Take time to reconstruct in your memory what actually happened before you respond.

In questions 2 through 10 you are only required to circle one number as a response to each part of the question. The number choices are linked to specific descriptive statements in the KEY for each question of the survey. Choose the alternative which is closest to what actually happened in each of the coaching areas listed.

Please be sure to answer all questions and return the questionnaire within 72 hours or three working days.

Thank you for your response

(c) H.R. Hein 1988

DEFINITION OF COACHING AREAS

PERFORMANCE APPRAISAL:

A. Annual Performance Appraisal Discussion - A formal meeting or meetings in which annual performance is reviewed against goals and standards. Formal Performance Review forms are completed and discussed.

B. Periodic Performance Appraisal Discussions - One or more discussions which summarize and discuss progress toward goals. They are interim performance discussions held in the time between formal Performance Appraisal Discussions. A record of these discussions may or may not be kept.

PERFORMANCE PLANNING DISCUSSION:

A discussion where goals and standards are established, explained or modified. It is not a departmental business planning meeting but a session in which an employee's specific performance goals are set and discussed using a formal planning document or a more informal process.

DAY-TO-DAY COACHING DISCUSSION:

Usually unplanned, unscheduled, informal comments or discussions about how your employee is performing, progressing, doing something right or wrong, or interacting with others successfully or unsuccessfully. It is not just giving assignments or information about work. It is not an audit of status of results except in those cases where it specifically addresses the employee's performance.

SHOWING HOW-TO-DO DISCUSSIONS:

Discussions in which you teach your employee how to do a task, solve a problem, overcome an obstacle, develop a skill or gain information from your experience which is applicable to a current problem. It is not just giving orders or directions.

FUTURE RESPONSIBILITY DISCUSSIONS:

Discussions of your employee's interests in working on other projects or assignments within his or her current job or future new position assignments. These discussions are not meetings where delegated assignments are just presented to the employee. The important factor is finding out the employee's interests, needs or motivation to advance or work in other areas

F. FUTURE RESPONSIBILITY DISCUSSIONS:

We spent _____ (how many) short intervals of _____ (min.) each.

and/or

We spent _____ (how many) long intervals of _____ (min.) _____ (hrs.) each.

1. For each of the coaching areas listed below please indicate how much time was spent by you and your employee. Short intervals are 30 minutes or less, long intervals are more than 30 minutes. If you met once-a-week you would indicate 50 or so intervals, once a month would be 12 intervals etc. Please insert "0"s if there was no activity.

A. ANNUAL PERFORMANCE APPRAISAL DISCUSSION:

We spent ____ (how many) short intervals of ____ (min.) each.

and/or

We spent ____ (how many) long intervals of ____ (min.) ____ (hrs.) each.

B. PERIODIC PERFORMANCE APPRAISAL DISCUSSION:

We spent ____ (how many) short intervals of ____ (min.) each.

and/or

We spent ____ (how many) long intervals of ____ (min.) ____ (hrs.) each.

C. PERFORMANCE PLANNING DISCUSSIONS:

We spent ____ (how many) short intervals of ____ (min.) each.

and/or

We spent ____ (how many) long intervals of ____ (min.) ____ (hrs.) each.

D. DAY-TO-DAY COACHING DISCUSSIONS:

We spent ____ (how many) short intervals of ____ (min.) each.

and/or

We spent ____ (how many) long intervals of ____ (min.) ____ (hrs.) each.

E. SHOWING HOW-TO-DO DISCUSSIONS:

We spent ____ (how many) short intervals of ____ (min.) each.

and/or

We spent ____ (how many) long intervals of ____ (min.) ____ (hrs.) each.

F. FUTURE RESPONSIBILITY DISCUSSIONS:

We spent ____ (how many) short intervals of ____ (min.) each.

and/or

We spent ____ (how many) long intervals of ____ (min.) ____ (hrs.) each.

2. For the coaching areas listed below use the following key to describe your use of positive feedback. Positive feedback is a statement of approval of some aspect of your employee's performance, behavior or results.

- 0 - We did not have a discussion in this area.
- 1 - No statements of approval were made.
- 2 - Approval was mentioned; few or no details; a reaction was not sought from the employee.
- 3 - Approval was mentioned; few or no details; a reaction was sought from the employee.
- 4 - Approval was clearly stated with details; a reaction was sought; there was no discussion of the details.
- 5 - Approval was clearly stated with details; a reaction was sought; there was a discussion of the details.

POSITIVE FEEDBACK	-- CIRCLE ONE NUMBER FOR EACH AREA LISTED					
A. PERFORMANCE APPRAISAL	0	1	2	3	4	5
B. PERFORMANCE PLANNING	0	1	2	3	4	5
C. DAY-TO-DAY COACHING	0	1	2	3	4	5
D. SHOWING HOW-TO-DO	0	1	2	3	4	5
E. FUTURE RESPONSIBILITIES	0	1	2	3	4	5

If all of the above ratings are not the same which rating is most typical of your behavior?	0	1	2	3	4	5
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3. For the coaching areas listed below use the following key to describe your use of negative feedback. Negative feedback is a statement of concern that some aspect of your employee's performance, behavior or results is not up to some expectation or standard.

- 0 - We did not have a discussion in this area.
- 1 - No concerns were mentioned by me.
- 2 - Concern was mentioned by me; few or no details; a reaction or reply was not sought from the employee.
- 3 - Concern was mentioned; few or no details; a reaction or reply was sought from the employee.
- 4 - Concern was clearly stated with detail; a reaction or reply was sought; there was no further discussion.
- 5 - Concern was clearly stated with detail; a reaction or reply was sought; there was a follow up discussion.

NEGATIVE FEEDBACK	-- CIRCLE ONE NUMBER FOR EACH AREA LISTED					
A. PERFORMANCE APPRAISAL	0	1	2	3	4	5
B. PERFORMANCE PLANNING	0	1	2	3	4	5
C. DAY-TO-DAY COACHING	0	1	2	3	4	5
D. SHOWING HOW-TO-DO	0	1	2	3	4	5
E. FUTURE RESPONSIBILITIES	0	1	2	3	4	5

If all of the above ratings are not the same which rating is most typical of your behavior?	0	1	2	3	4	5
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4. For the coaching areas listed below use the following key to describe what typically happened in discussions with your employee.

- 0 - We did not have a discussion in this area.
- 1 - I made all the inputs and set the direction.
- 2 - We shared inputs but I directed the discussion.
- 3 - We shared inputs and shared directing the discussion.
- 4 - We shared inputs but my employee made important decisions in directing the discussion.
- 5 - My employee made major inputs and important decisions in directing the discussion.

COACHING DIRECTION -- CIRCLE ONE NUMBER FOR EACH AREA LISTED

A. PERFORMANCE APPRAISAL	0	1	2	3	4	5
B. PERFORMANCE PLANNING	0	1	2	3	4	5
C. DAY-TO-DAY COACHING	0	1	2	3	4	5
D. SHOWING HOW-TO-DO	0	1	2	3	4	5
E. FUTURE RESPONSIBILITIES	0	1	2	3	4	5

If all of the above ratings are not the same which rating is most typical of your behavior? 0 1 2 3 4 5

5. For the coaching areas listed below, use the following key to describe the emphasis you placed on specific facts and details or concepts or broad general ideas.

- 0 - We did not have a discussion in this area.
- 1 - Very little specific information was discussed or written; almost all interaction was at the concept or general level.
- 2 - There were some specifics; most was at the concept level.
- 3 - There was an equal amount of concept and specific information written and or discussed.
- 4 - There was a heavy emphasis on data and detail with some concepts to hold it together.
- 5 - There was much detail and specific information discussed, written or required; little was left at the concept level.

FACTS AND CONCEPTS -- CIRCLE ONE NUMBER FOR EACH AREA LISTED

A. PERFORMANCE APPRAISAL	0	1	2	3	4	5
B. PERFORMANCE PLANNING	0	1	2	3	4	5
C. DAY-TO-DAY COACHING	0	1	2	3	4	5
D. SHOWING HOW-TO-DO	0	1	2	3	4	5
E. FUTURE RESPONSIBILITIES	0	1	2	3	4	5

If all of the above ratings are not the same which rating is most typical of your behavior? 0 1 2 3 4 5

6. For the coaching areas listed below use the following key to describe your adherence to schedules to either set up discussions or to implement decisions or action resulting from coaching discussions.

- 0 - We did not have a discussion in this area.
- 1 - Schedules were frequently not set.
- 2 - Schedules were loosely set; wide latitude or deviation was possible.
- 3 - Schedules were set within a range; there was flexibility to change.
- 4 - Schedules were quite specific; there was latitude to change.
- 5 - Schedules were very specific; there was little latitude to change.

SCHEDULES ----- CIRCLE ONE NUMBER FOR EACH AREA LISTED

A. PERFORMANCE APPRAISAL	0	1	2	3	4	5
B. PERFORMANCE PLANNING	0	1	2	3	4	5
C. DAY-TO-DAY COACHING	0	1	2	3	4	5
D. SHOWING HOW-TO-DO	0	1	2	3	4	5
E. FUTURE RESPONSIBILITIES	0	1	2	3	4	5

If all of the above ratings are not the same which rating is most typical of your behavior? 0 1 2 3 4 5

7. Use the following key to describe how your coaching activities in the areas listed below changed or helped your employee's learning, performance or behavior.

- 0 - We did not have a discussion in this area.
- 1 - There were no noticeable effects due to these discussions.
- 2 - There has been little effect on the way things are done.
- 3 - There has been some effect on the way things are approached or done as a result of these discussions.
- 4 - There has been at least one important behavioral effect as the result of these discussions.
- 5 - There have been one or more very important effects on my employee's behavior or approach as a result of these discussions.

EFFECTS ----- CIRCLE ONE NUMBER FOR EACH AREA LISTED

A. PERFORMANCE APPRAISAL	0	1	2	3	4	5
B. PERFORMANCE PLANNING	0	1	2	3	4	5
C. DAY-TO-DAY COACHING	0	1	2	3	4	5
D. SHOWING HOW-TO-DO	0	1	2	3	4	5
E. FUTURE RESPONSIBILITIES	0	1	2	3	4	5

If all of the above ratings are not the same which rating is most typical of effect of coaching? 0 1 2 3 4 5

8. For the coaching areas listed below use the following key to describe the type of discussion you and your employee had about his or her development needs. Development needs are areas of skill or knowledge which could be improved to enhance chances of current or future success.

- 0 - We did not have a discussion in this area.
- 1 - No development needs were discussed.
- 2 - Employee's development needs were mentioned briefly; no action plan was formulated to meet needs.
- 3 - We discussed one or more specific development needs; no specific action was planned.
- 4 - We discussed one or more specific development needs; we have a plan of action to help employee improve.
- 5 - There was a discussion of important development needs that are critical to employee's current or future success; we are committed to a plan of action to improve.

DEVELOPMENT	-----	CIRCLE ONE NUMBER FOR EACH AREA LISTED					
A. PERFORMANCE APPRAISAL	0	1	2	3	4	5	
B. PERFORMANCE PLANNING	0	1	2	3	4	5	
C. DAY-TO-DAY COACHING	0	1	2	3	4	5	
D. SHOWING HOW-TO-DO	0	1	2	3	4	5	
E. FUTURE RESPONSIBILITIES	0	1	2	3	4	5	

If all of the above ratings are not the same which rating is most typical of development needs? 0 1 2 3 4 5

9. What type of difficulty or reluctance do you experience in dealing with coaching? Difficulty is the degree of technical or interpersonal skill that must be exercised to do well. Reluctance is the degree to which you avoid or put off a task. Use the following key to describe difficulty with the coaching areas listed below.

- 0 - I have never done this.
- 1 - I find this easy and I start it readily.
- 2 - I find this easy but I start reluctantly.
- 3 - I find this moderately difficult and I start with some reluctance.
- 4 - I find this difficult but I start readily.
- 5 - I find this difficult and I am often reluctant to start.

DIFFICULTY	-----	CIRCLE ONE NUMBER FOR EACH AREA LISTED					
A. PERFORMANCE APPRAISAL	0	1	2	3	4	5	
B. PERFORMANCE PLANNING	0	1	2	3	4	5	
C. DAY-TO-DAY COACHING	0	1	2	3	4	5	
D. SHOWING HOW-TO-DO	0	1	2	3	4	5	
E. FUTURE RESPONSIBILITIES	0	1	2	3	4	5	

If all of the above ratings are not the same which rating is most typical of coaching difficulty? 0 1 2 3 4 5

10. Please rank order, relative to one another, the coaching areas below in terms of overall difficulty for you to accomplish them. Use 5 to designate the most difficult, and 1 for the least difficult. Use 2,3, and 4 for in-between levels of difficulty.

RANKING -- CIRCLE ONE NUMBER FOR EACH AREA LISTED					
A. PERFORMANCE APPRAISAL	1	2	3	4	5
B. PERFORMANCE PLANNING	1	2	3	4	5
C. DAY-TO-DAY COACHING	1	2	3	4	5
D. SHOWING HOW-TO-DO	1	2	3	4	5
E. FUTURE RESPONSIBILITIES	1	2	3	4	5

Please indicate your age in years _____.

APPENDIX C

LIST OF EXPERTS

EXPERT PANEL MEMBERS

Mr. Alfonso Antonelli
Manager, Management and Technical Education
The Perkin-Elmer Corporation

Mr. Paul Baird
Senior Human Resources Manager
The Perkin-Elmer Corporation

Dr. Michael Danohak
Dean
Hartford Graduate Center

Dr. Anton K. Dekon
President
Profit Management Associates

Dr. John Drake
Consultant, Author
Former President, Drake

APPENDIX C

PANEL OF EXPERTS

Dr. Richard Lazar
Consultant, Former Corporate Management Development Manager
Author, University Professor
President
United States Management Incorporated

Dr. Philip Shask
Consultant, Former Dean of Rutgers Executive Program
Professor of Management

Mr. Charles Townsend
Consultant, Former Corporate Management Development Manager
President
Management Skills International

EXPERT PANEL MEMBERS

Mr. Alfonse Antonelli
 Manager, Management and Technical Education
 The Perkin-Elmer Corporation

Mr. Paul Baird
 Senior Human Resources Manager
 The Perkin-Elmer Corporation

Dr. Michael Danchak
 Dean
 Hartford Graduate Center

Dr. Anton K. Dekom
 President
 Profit Management Associates

Dr. John Drake
 Consultant, Author
 Former President, Drake-Beam Associates

Dr. Richard Lazar
 Consultant, Former Corporate Management Development Manager
 Author, University Professor
 President
 United States Management Incorporated

Dr. Philip Shaak
 Consultant, Former Dean of Rutgers Executive Program
 Professor of Management

Mr. Charles Townsend
 Consultant, Former Corporate Management Development Manager
 President
 Management Skills International

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